# Test bank for M Finance 3rd Edition Cornett Adair Nofsinger 00778617799780077861773 <br> Link full download: <br> Test bank: 

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Chapter 02

Reviewing Financial Statements

Multiple Choice Questions

1. Which financial statement reports a firm's assets, liabilities, and equity at a particular point in time?
A. Balance sheet
B. Income statement
C. Statement of retained earnings
D. Statement of cash flows
2. Which financial statement shows the total revenues that a firm earns and the total expenses the firm incurs to generate those revenues over a specific period of time-generally one year?
A. Balance sheet
B. Income statement
C. Statement of retained earnings
D. Statement of cash flows

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3. Which financial statement reports the amounts of cash that the firm generated and distributed during a particular time period?
A. Balance sheet
B. Income statement
C. Statement of retained Earnings
D. Statement of cash Flows
4. Which financial statement reconciles net income earned during a given period and any cash dividends paid within that period using the change in retained earnings between the beginning and end of the period?
A. Balance sheet
B. Income statement
C. Statement of retained earnings
D. Statement of cash flows
5. On which of the four major financial statements would you find the common stock and paidin surplus?
A. Balance sheet
B. Income statement
C. Statement of cash flows
D. Statement of retained earnings

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6. On which of the four major financial statements would you find the increase in inventory?
A. Balance sheet
B. Income statement
C. Statement of cash flows
D. Statement of retained earnings
7. On which of the four major financial statements would you find net plant and equipment?
A. Balance sheet
B. Income statement
C. Statement of cash flows
D. Statement of retained earnings
8. Financial statements of publicly traded firms can be found in a number of places. Which of the following is NOT an option for finding publicly traded firms' financial statements?
A. Facebook
B. A firm's website
C. Securities and Exchange Commission's (SEC) website
D. Websites such as finance.yahoo.com

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9. For which of the following would one expect the book value of the asset to differ widely from its market value?
A. Cash
B. Accounts receivable
C. Inventory
D. Fixed assets
10. Common stockholders' equity divided by number of shares of common stock outstanding is the formula for calculating
A. Earnings per share (EPS).
B. Dividends per share (DPS).
C. Book value per share (BVPS).
D. Market value per share (MVPS).
11. When a firm alters its capital structure to include more or less debt (and, in turn, less or more equity), it impacts which of the following?
A. The residual cash flows available for stock holders
B. The number of shares of stock outstanding
C. The earnings per share (EPS)
D. All of the choices

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12. This is the amount of additional taxes a firm must pay out for every additional dollar of taxable income it earns.
A. Average tax rate
B. Marginal tax rate
C. Progressive tax system
D. Earnings before tax
13. An equity-financed firm will:
A. pay more in income taxes than a debt-financed firm.
B. pay less in income taxes than a debt-financed firm.
C. pay the same in income taxes as a debt-finance firm.
D. not pay any income taxes.
14. Deferred taxes occur when a company postpones taxes on profits pertaining to:
A. tax years they are under an audit by the Internal Revenue Service.
B. funds they have not collected because they use the accrual method of accounting.
C. a loss they intend to carry back or carry forward on their income tax returns.
D. a particular period as they end up postponing part of their tax liability on this year's profits to future years.

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15. Net operating profit after taxes (NOPAT) is defined as which of the following?
A. Net profit a firm earns before taxes, but after any financing costs
B. Net profit a firm earns after taxes, and after any financing cots
C. Net profit a firm earns after taxes, but before any financing costs
D. Net profit a firm earns before taxes, and before any financing cost
16. This is cash flow available for payments to stockholders and debt holders of a firm after the firm has made investments in assets necessary to sustain the ongoing operations of the firm.
A. Net income available to common stockholders
B. Cash flow from operations
C. Net cash flow
D. Free cash flow
17. Which of the following activities result in an increase in a firm's cash?
A. Decrease fixed assets
B. Decrease accounts payable
C. Pay dividends
D. Repurchase of common stock
18. These are cash inflows and outflows associated with buying and selling of fixed or other long-term assets.
A. Cash flows from operations
B. Cash flows from investing activities
C. Cash flows from financing activities
D. Net change in cash and cash equivalents
19. If a company reports a large amount of net income on its income statement during a year, the firm will have:
A. positive cash flow.
B. negative cash flow.
C. zero cash flow.
D. Any of these scenarios are possible.
20. Free cash flow is defined as:
A. cash flows available for payments to stockholders of a firm after the firm has made payments to all others will claims against it.
B. cash flows available for payments to stockholders and debt holders of a firm after the firm has made payments necessary to vendors.
C. cash flows available for payments to stockholders and debt holders of a firm after the firm has made investments in assets necessary to sustain the ongoing operations of the firm.
D. cash flows available for payments to stockholders and debt holders of a firm that would be taxfree to the recipients.

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21. The Sarbanes-Oxley Act requires public companies to ensure which of the following individuals have considerable experience applying generally accepted accounting principles (GAAP) for financial statements.
A. External auditors
B. Internal auditors
C. Chief financial officers
D. Corporate boards' audit committees
22. Balance Sheet You are evaluating the balance sheet for Campus Corporation. From the balance sheet you find the following balances: cash and marketable securities $=\$ 400,000$, accounts receivable $=\$ 200,000$, inventory $=\$ 100,000$, accrued wages and taxes $=\$ 10,000$, accounts payable $=\$ 300,000$, and notes payable $=\$ 600,000$. What is Campus's net working capital?
A. $-\$ 210,000$
B. $\$ 700,000$
C. \$910,000
D. $\$ 1,610,000$
23. Balance Sheet Jack and Jill Corporation's year-end 2013 balance sheet lists current assets of $\$ 250,000$, fixed assets of $\$ 800,000$, current liabilities of $\$ 195,000$, and long-term debt of $\$ 300,000$. What is Jack and Jill's total stockholders' equity?
A. $\$ 495,000$
B. $\$ 555,000$
C. $\$ 1,050,000$
D. There is not enough information to calculate total stockholder's equity.

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24. Income Statement Bullseye, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 900,000$, interest expense $=\$ 85,000$, and net income $=\$ 570,000$. What are the 2013 taxes reported on the income statement?
A. $\$ 245,000$
B. $\$ 330,000$
C. $\$ 815,000$
D. There is not enough information to calculate 2013 taxes.
25. Income Statement Consider a firm with an EBIT of $\$ 500,000$. The firm finances its assets with $\$ 2,000,000$ debt (costing 6 percent) and 50,000 shares of stock selling at $\$ 20.00$ per share. To reduce the firm's risk associated with this financial leverage, the firm is considering reducing its debt by $\$ 1,000,000$ by selling an additional 50,000 shares of stock. The firm is in the 40 percent tax bracket. The change in capital structure will have no effect on the operations of the firm. Thus, EBIT will remain $\$ 500,000$. What is the change in the firm's EPS from this change in capital structure?
A. Decrease EPS by $\$ 1.68$
B. Decrease EPS by $\$ 1.92$
C. Decrease EPS by $\$ 3.20$
D. Increase EPS by $\$ 0.72$

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26. Income Statement Consider a firm with an EBIT of $\$ 5,000,000$. The firm finances its assets with $\$ 20,000,000$ debt (costing 5 percent) and 70,000 shares of stock selling at $\$ 50.00$ per share. To reduce the firm's risk associated with this financial leverage, the firm is considering reducing its debt by $\$ 5,000,000$ by selling an additional 100,000 shares of stock. The firm is in the 40 percent tax bracket. The change in capital structure will have no effect on the operations of the firm. Thus, EBIT will remain $\$ 5,000,000$. What is the change in the firm's EPS from this change in capital structure?
A. Decrease EPS by $\$ 9.29$
B. Decrease EPS by $\$ 18.70$
C. Decrease EPS by $\$ 19.29$
D. Increase EPS by $\$ 2.14$
27. Income Statement Barnyard, Inc.'s 2013 income statement lists the following income and expenses: $\mathrm{EBIT}=\$ 500,000$, interest expense $=\$ 45,000$, and taxes $=\$ 152,000$. Barnyard's has no preferred stock outstanding and 200,000 shares of common stock outstanding. What are its 2013 earnings per share?
A. $\$ 2.50$
B. $\$ 2.275$
C. $\$ 1.74$
D. \$1.515

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28. Corporate Taxes Eccentricity, Inc. had $\$ 300,000$ in 2013 taxable income. Using the tax schedule from Table 2-3, what are the company's 2013 income taxes, average tax rate, and marginal tax rate, respectively?

| Taxable income | Pay this amount on <br> Base income | Plus this percentage on <br> anything over the base |
| :--- | :---: | :---: |
| $\$ 0-\$ 50,000$ | $\$ 0$ | $15 \%$ |
| $\$ 50,001-\$ 75,000$ | $\$ 7,500$ | $25 \%$ |
| $\$ 75,001-\$ 100,000$ | $\$ 13,500$ | $34 \%$ |
| $\$ 100,001-\$ 335,000$ | $\$ 22,250$ | $39 \%$ |
| $\$ 335,000-\$ 10,000,000$ | $\$ 113,900$ | $34 \%$ |

A. $\$ 22,250,7.42 \%, 39 \%$ B.
\$78,000, 26.00\%, 39\% C.
\$100,250, 33.42\%, 39\% D.
$\$ 139,250,46.42 \%, 39 \%$
29. Corporate Taxes Swimmy, Inc. had $\$ 400,000$ in 2013 taxable income. Using the tax schedule from Table 2-3, what are the company's 2013 income taxes, average tax rate, and marginal tax rate, respectively?
Taxable income
$\$ 0-\$ 50,000$
$\$ 50,001-\$ 75,000$
$\$ 75,001-\$ 100,000$
$\$ 100,001-\$ 335,000$
$\$ 335,000-\$ 10,000,000$

Pay this amount on Base income
$\$ 0$
$\$ 7,500$
\$13,500
\$22,250
\$113,900

Plus this percentage on anything over the base
$15 \%$
$25 \%$
34\%
$39 \%$
$34 \%$
A. $\$ 22,100,5.53 \%, 34 \%$
B. $\$ 113,900,28.48 \%, 34 \%$
C. $\$ 136,000,34.00 \%, 34 \%$
D. $\$ 136,000,39.00 \%, 34 \%$

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30. Corporate Taxes Scuba, Inc. is concerned about the taxes paid by the company in 2013. In addition to $\$ 5$ million of taxable income, the firm received $\$ 80,000$ of interest on state-issued bonds and \$500,000 of dividends on common stock it owns in Boating Adventures, Inc. What are Scuba's tax liability, average tax rate, and marginal tax rate, respectively?
A. $\$ 1,637,100,31.79 \%, 34 \%$
B. $\$ 1,751,000,34.00 \%, 34 \%$
C. $\$ 1,870,000,34.00 \%, 34 \%$
D. $\$ 1,983,900,36.07 \%, 34 \%$
31. Statement of Cash Flows Paige's Properties Inc. reported 2013 net income of $\$ 5$ million and depreciation of \$1,500,000. The top part Paige's Properties, Inc.'s 2012 and 2013 balance sheets is listed as follows (in millions of dollars).

| Current assets <br> Cash and marketable | 2012 | 2013 | Current liabilities <br> Accrued wages and | 2012 | 2013 |
| :--- | ---: | ---: | :--- | ---: | ---: |
| $\quad$ securities | $\$ 10$ | $\$ 20$ | taxes | $\$ 5$ | $\$ 11$ |
| Accounts receivable | 20 | 34 | Accounts payable | 25 | 29 |
| Inventory | $\underline{10}$ | 11 | Notes payable | $\underline{10}$ | 25 |
| Total | $\$ 40$ | $\$ 65$ | Total | $\$ 40$ | $\$ 65$ |

What is the 2013 net cash flow from operating activities for Paige's Properties, Inc.?
A. $-\$ 13,500,000$
B. $\$ 1,500,000$
C. $\$ 5,000,000$
D. $\$ 6,500,000$

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32. Statement of Cash Flows In 2013, Upper Crust had cash flows from investing activities of $(\$ 250,000)$ and cash flows from financing activities of $(\$ 150,000)$. The balance in the firm's cash account was $\$ 90,000$ at the beginning of 2013 and $\$ 105,000$ at the end of the year. What was Upper Crust's cash flow from operations for 2013?
A. $\$ 15,000$
B. $\$ 105,000$
C. $\$ 400,000$
D. $\$ 415,000$
33. Statement of Cash Flows In 2013, Lower Case Productions had cash flows from investing activities of $+\$ 50,000$ and cash flows from financing activities of $+\$ 100,000$. The balance in the firm's cash account was $\$ 80,000$ at the beginning of 2013 and $\$ 65,000$ at the end of the year. What was Lower Case's cash flow from operations for 2013?
A. $-\$ 15,000$
B. $-\$ 150,000$
C. - $\$ 165,000$
D. $-\$ 65,000$

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34. Free Cash Flow You are considering an investment in Crew Cut, Inc. and want to evaluate the firm's free cash flow. From the income statement, you see that Crew Cut earned an EBIT of \$23 million, paid taxes of $\$ 4$ million, and its depreciation expense was $\$ 8$ million. Crew Cut's gross fixed assets increased by $\$ 10$ million from 2007 to 2008. The firm's current assets increased by $\$ 6$ million and spontaneous current liabilities increased by $\$ 4$ million. What is Crew Cut's operating cash flow, investment in operating capital and free cash flow for 2013, respectively in millions?
A. $\$ 23, \$ 10, \$ 13$
B. $\$ 23, \$ 12, \$ 11$
C. $\$ 27, \$ 10, \$ 17$
D. $\$ 27, \$ 12, \$ 15$
35. Free Cash Flow You are considering an investment in Cruise, Inc. and want to evaluate the firm's free cash flow. From the income statement, you see that Cruise earned an EBIT of $\$ 202$ million, paid taxes of $\$ 51$ million, and its depreciation expense was $\$ 75$ million. Cruise's gross fixed assets increased by $\$ 70$ million from 2012 to 2013. The firm's current assets decreased by $\$ 10$ million and spontaneous current liabilities increased by $\$ 6$ million. What is Cruise's operating cash flow, investment in operating capital, and free cash flow for 2013, respectively, in millions?
A. $\$ 202, \$ 70, \$ 130$
B. $\$ 226, \$ 70, \$ 156$
C. $\$ 226, \$ 54, \$ 172$
D. $\$ 226, \$ 74, \$ 152$

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36. Free Cash Flow Catering Corp. reported free cash flows for 2013 of $\$ 8$ million and investment in operating capital of $\$ 2$ million. Catering listed $\$ 1$ million in depreciation expense and $\$ 2$ million in taxes on its 2008 income statement. What was Catering's 2013 EBIT?
A. $\$ 7$ million
B. $\$ 10$ million
C. $\$ 11$ million
D. $\$ 13$ million
37. Statement of Retained Earnings TriCycle, Corp. began the year 2013 with $\$ 25$ million in retained earnings. The firm earned net income of $\$ 7$ million in 2008 and paid $\$ 1$ million to its preferred stockholders and \$3 million to its common stockholders. What is the year-end 2013 balance in retained earnings for TriCycle?
A. $\$ 25$ million
B. $\$ 28$ million
C. \$32 million
D. $\$ 36$ million
38. Statement of Retained Earnings Night Scapes, Corp. began the year 2013 with $\$ 10$ million in retained earnings. The firm suffered a net loss of $\$ 2$ million in 2013 and yet paid $\$ 2$ million to its preferred stockholders and $\$ 1$ million to its common stockholders. What is the year-end 2013 balance in retained earnings for Night Scapes?
A. $\$ 5$ million
B. $\$ 8$ million
C. $\$ 9$ million
D. $\$ 15$ million

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39. Statement of Retained Earnings Use the following information to find dividends paid to common stockholders during 2013.

Balance of Retained Earnings, December 31, 2012
\$52m
21 m
Plus: Net Income for 2013
Less: Cash Dividends Paid Preferred Stock $\quad \$ 7 \mathrm{~m}$
Common Stock
10 m
Total Cash Dividends Paid
Balance of Retained Earnings, December 31, 2013

17 m $\$ 56 \mathrm{~m}$
A. $\$ 3$ million
B. $\$ 4$ million
C. $\$ 10$ million
D. $\$ 17$ million
40. Balance Sheet Harvey's Hamburger Stand has total assets of $\$ 3$ million of which $\$ 1$ million are current assets. Cash makes up 20 percent of the current assets and accounts receivable makes up another 5 percent of current assets. Harvey's gross plant and equipment has a book value of $\$ 1.5$ million and other long-term assets have a book value of $\$ 1$ million. Using this information, what is the balance of inventory and the balance of depreciation on Harvey's Hamburger Stand's balance sheet?
A. $\$ 250,000, \$ 500,000$
B. $\$ 250,000, \$ 1$ million
C. $\$ 750,000, \$ 500,000$
D. $\$ 750,000, \$ 1$ million
41. Balance Sheet School Books, Inc. has total assets of $\$ 18$ million of which $\$ 6$ million are current assets. Cash makes up 10 percent of the current assets and accounts receivable makes up another 40 percent of current assets. School Books' gross plant and equipment has an original cost of $\$ 13$ million and other long-term assets have a cost value of $\$ 2$ million. Using this information, what are the balance of inventory and the balance of depreciation on School Books' balance sheet?
A. $\$ 3$ million, $\$ 2$ million
B. $\$ 3$ million, $\$ 3$ million
C. $\$ 2.4$ million, $\$ 2$ million
D. $\$ 2.4$ million, $\$ 3$ million
42. Balance Sheet Ted's Taco Shop has total assets of $\$ 5$ million. Forty percent of these assets are financed with debt of which $\$ 400,000$ is current liabilities. The firm has no preferred stock but the balance in common stock and paid-in surplus is $\$ 1$ million. Using this information what is the balance for long-term debt and retained earnings on Ted's Taco Shop's balance sheet?
A. $\$ 400,000, \$ 1$ million
B. $\$ 1.6$ million, $\$ 2$ million
C. $\$ 1.6$ million, $\$ 3$ million
D. \$2 million, \$3 million

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43. Balance Sheet Hair Etc. has total assets of $\$ 15$ million. Twenty percent of these assets are financed with debt of which $\$ 1$ million is current liabilities. The firm has no preferred stock but the balance in common stock and paid-in surplus is $\$ 8$ million. Using this information what is the balance for long-term debt and retained earnings on Hair Etc.'s balance sheet?
A. $\$ 1$ million, $\$ 8$ million
B. $\$ 2$ million, $\$ 4$ million
C. $\$ 2$ million, $\$ 8$ million
D. $\$ 3$ million, $\$ 4$ million
44. Market Value versus Book Value Acme Bricks balance sheet lists net fixed assets as $\$ 40$ million. The fixed assets could currently be sold for $\$ 50$ million. Acme's current balance sheet shows current liabilities of $\$ 15$ million and net working capital of $\$ 12$ million. If all the current accounts were liquidated today, the company would receive $\$ 77$ million cash after paying $\$ 15$ million in liabilities. What is the book value of Acme's assets today? What is the market value of these assets?
A. $\$ 12$ million, $\$ 77$ million B.
\$27 million, \$92 million C.
\$40 million, $\$ 50$ million D .
\$67 million, \$142 million

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45. Market Value versus Book Value Glo's Glasses balance sheet lists net fixed assets as $\$ 20$ million. The fixed assets could currently be sold for $\$ 25$ million. Glo's current balance sheet shows current liabilities of $\$ 7$ million and net working capital of $\$ 3$ million. If all the current accounts were liquidated today, the company would receive $\$ 9$ million cash after paying $\$ 7$ million in liabilities. What is the book value of Glo's assets today? What is the market value of these assets?
A. $\$ 10$ million, $\$ 16$ million
B. $\$ 10$ million, $\$ 35$ million
C. $\$ 30$ million, $\$ 35$ million
D. $\$ 30$ million, $\$ 41$ million
46. Market Value versus Book Value Rupert's Rims balance sheet lists net fixed assets as $\$ 15$ million. The fixed assets could currently be sold for $\$ 17$ million. Rupert's current balance sheet shows current liabilities of $\$ 5$ million and net working capital of $\$ 3$ million. If all the current accounts were liquidated today, the company would receive $\$ 6$ million cash after paying $\$ 5$ million in liabilities. What is the book value of Rupert's assets today? What is the market value of these assets?
A. $\$ 8$ million, $\$ 23$ million
B. $\$ 23$ million, $\$ 25$ million
C. $\$ 23$ million, $\$ 28$ million
D. $\$ 31$ million, $\$ 28$ million

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47. Debt versus Equity Financing You are considering a stock investment in one of two firms (AllDebt, Inc. and AllEquity, Inc.), both of which operate in the same industry and have identical operating income of $\$ 600,000$. AllDebt, Inc. finances its $\$ 1.2$ million in assets with $\$ 1$ million in debt (on which it pays 10 percent interest annually) and $\$ 0.2$ million in equity. AllEquity, Inc. finances its $\$ 1.2$ million in assets with no debt and $\$ 1.2$ million in equity. Both firms pay a tax rate of 30 percent on their taxable income. What are the asset funders' (the debt holders and stockholders) resulting return on assets for the two firms?
A. $29.17 \%$, and $35 \%$, respectively
B. $37.5 \%$, and $35 \%$, respectively
C. $37.5 \%$, and $37.5 \%$, respectively
D. $50 \%$, and $50 \%$, respectively
48. Debt versus Equity Financing You are considering a stock investment in one of two firms (AllDebt, Inc. and AllEquity, Inc.), both of which operate in the same industry and have identical operating income of $\$ 3$ million. AllDebt, Inc. finances its $\$ 6$ million in assets with $\$ 5$ million in debt (on which it pays 5 percent interest annually) and $\$ 1$ million in equity. AllEquity, Inc. finances its $\$ 6$ million in assets with no debt and $\$ 6$ million in equity. Both firms pay a tax rate of 40 percent on their taxable income. What are the asset funders' (the debt holders and stockholders) resulting return on assets for the two firms?
A. $27.5 \%$, and $30 \%$, respectively
B. $31.67 \%$, and $30 \%$, respectively
C. $33 \%$, and $30 \%$, respectively
D. $50 \%$, and $50 \%$, respectively

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49. Debt versus Equity Financing You are considering a stock investment in one of two firms (AllDebt, Inc. and AllEquity, Inc.), both of which operate in the same industry and have identical operating income of $\$ 400,000$. AllDebt, Inc. finances its $\$ 800,000$ in assets with $\$ 600,000$ in debt (on which it pays 5 percent interest annually) and $\$ 200,000$ in equity. AllEquity, Inc. finances its $\$ 800,000$ in assets with no debt and $\$ 800,000$ in equity. Both firms pay a tax rate of 30 percent on their taxable income. What are the asset funders' (the debt holders and stockholders) resulting return on assets for the two firms?
A. $32.375 \%$, and $35.00 \%$, respectively
B. $36.125 \%$, and $35.00 \%$, respectively
C. $46.25 \%$, and $50 \%$, respectively
D. $50 \%$, and $50 \%$, respectively
50. Income Statement You have been given the following information for Fina's Furniture

Corp.: Net sales = \$25,500,000;
Cost of goods sold = \$10,250,000; Addition
to retained earnings = \$305,000;

Dividends paid to preferred and common stockholders $=\$ 500,000$;
Interest expense $=\$ 2,000,000$.

The firm's tax rate is 30 percent. What is the depreciation expense for Fina's Furniture Corp.?
A. $\$ 12,100,000$
B. $\$ 12,400,000$
C. \$14,100,000
D. $\$ 14,400,000$

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51. Income Statement You have been given the following information for Romeo's Rockers Corp.: Net sales $=\$ 5,200,000$;

Cost of goods sold $=\$ 2,100,000$; Addition
to retained earnings $=\$ 1,000,000$;

Dividends paid to preferred and common stockholders =
$\$ 400,000$; Interest expense $=\$ 200,000$.
The firm's tax rate is 30 percent. What is the depreciation expense for Romeo's Rockers Corp.?
A. $\$ 900,000$
B. $\$ 1,100,000$
C. $\$ 1,500,000$
D. $\$ 1,600,000$
52. Income Statement You have been given the following information for Nicole's Neckties Corp.: Net sales $=\$ 2,500,000$;

Cost of goods sold $=\$ 1,300,000 ;$ Addition
to retained earnings $=\$ 30,000$;

Dividends paid to preferred and common stockholders $=\$ 300,000$;
Interest expense $=\$ 50,000$.

The firm's tax rate is 40 percent. What is the depreciation expense for Nicole's Neckties Corp.?
A. \$550,000
B. $\$ 600,000$
C. \$650,000
D. $\$ 820,000$

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53. Income Statement You have been given the following information for Sherry's Sandwich

Corp.: Net sales = \$300,000;

Gross profit = \$100,000;
Addition to retained earnings $=\$ 30,000$;
Dividends paid to preferred and common stockholders =
$\$ 8,500 ;$ Depreciation expense $=\$ 25,000$.
The firm's tax rate is 30 percent. What are the cost of goods sold and the interest expense for Sherry's Sandwich Corp.?
A. $\$ 20,000$, and $\$ 200,000$, respectively
B. $\$ 100,000$, and $\$ 20,000$, respectively
C. $\$ 200,000$, and $\$ 20,000$, respectively
D. $\$ 200,000$, and $\$ 36,500$, respectively
54. Income Statement You have been given the following information for Kaye's Krumpet

Corp.: Net sales = \$150,000;

Gross profit = \$100,000;

Addition to retained earnings = \$20,000;
Dividends paid to preferred and common stockholders =
$\$ 8,000 ;$ Depreciation expense $=\$ 50,000$.

The firm's tax rate is 30 percent. What are the cost of goods sold and the interest expense for Kaye's Krumpet Corp.?
A. $\$ 10,000$, and $\$ 50,000$, respectively
B. $\$ 50,000$, and $\$ 10,000$, respectively
C. $\$ 50,000$, and $\$ 22,000$, respectively
D. $\$ 62,000$, and $\$ 10,000$, respectively

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55. Income Statement You have been given the following information for Ross's Rocket Corp.: Net sales = \$1,000,000;

Gross profit $=\$ 400,000$;

Addition to retained earnings = \$60,000;
Dividends paid to preferred and common stockholders =
$\$ 90,000$; Depreciation expense $=\$ 50,000$.

The firm's tax rate is 40 percent. What are the cost of goods sold and the interest expense for Ross's Rocket Corp.?
A. $\$ 100,000$, and $\$ 600,000$, respectively
B. $\$ 600,000$, and $\$ 100,000$, respectively
C. $\$ 600,000$, and $\$ 200,000$, respectively
D. $\$ 700,000$, and $\$ 100,000$, respectively
56. Corporate Taxes The Carolina Corporation had a 2013 taxable income of \$3,000,000 from operations after all operating costs but before
(1) interest charges of $\$ 500,000$,
(2) dividends received of $\$ 75,000$,
(3) dividends paid of $\$ 1,000,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is Carolina's income tax liability?
What are Carolina's average and marginal tax rates on taxable income from operations?
A. $\$ 857,650,28.59 \%, 34 \%$, respectively
B. $\$ 875,500,29.18 \%, 34 \%$, respectively
C. $\$ 875,500,34.00 \%, 34 \%$, respectively
D. $\$ 1,020,000,34.00 \%, 34 \%$, respectively

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57. Corporate Taxes The Ohio Corporation had a 2013 taxable income of $\$ 50,000,000$ from operations after all operating costs but before
(1) interest charges of $\$ 500,000$,
(2) dividends received of $\$ 45,000$,
(3) dividends paid of $\$ 10,000,000$, and (4) income taxes.

Using the tax schedule in Table 2.3, what is Ohio's income tax liability? What are Ohio's average and marginal tax rates on taxable income from operations?
A. $\$ 6,416,667,12.83 \%, 35 \%$, respectively
B. $\$ 13,829,725,27.66 \%, 35 \%$, respectively
C. $\$ 17,329,725,34.66 \%, 35 \%$, respectively
D. $\$ 17,340,750,34.68 \%, 35 \%$, respectively
58. Corporate Taxes The Sasnak Corporation had a 2013 taxable income of $\$ 4,450,000$ from operations after all operating costs but before
(1) interest charges of $\$ 750,000$,
(2) dividends received of $\$ 900,000$,
(3) dividends paid of $\$ 500,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is Sasnak's income tax liability?
What are Sasnak's average and marginal tax rates on taxable income from operations?
A. $\$ 1,349,800,30.33 \%, 34 \%$, respectively
B. $\$ 1,349,800,34.00 \%, 34 \%$, respectively
C. $\$ 1,564,000,34.00 \%, 34 \%$, respectively
D. $\$ 1,564,000,35.15 \%, 34 \%$, respectively

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59. Corporate Taxes The AOK Corporation had a 2013 taxable income of $\$ 2,200,000$ from operations after all operating costs but before
(1) interest charges of \$90,000,
(2) dividends received of $\$ 750,000$,
(3) dividends paid of $\$ 80,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is AOK's income tax liability?
What are AOK's average and marginal tax rates on taxable income from operations?
A. $\$ 793,900,34 \%, 34 \%$, respectively
B. $\$ 793,900,36.0864 \%, 34 \%$, respectively
C. $\$ 972,400,34 \%, 34 \%$, respectively
D. $\$ 972,400,44.2 \%, 34 \%$, respectively
60. Corporate Taxes Suppose that in addition to the $\$ 5.5$ million of taxable income from operations, Emily's Flowers, Inc. received $\$ 500,000$ of interest on state-issued bonds and $\$ 300,000$ of dividends on common stock it owns in Amy's Iris Bulbs, Inc.

Using the tax schedule in Table 2.3 what is Emily's Flowers' income tax liability? What are Emily's Flowers' average and marginal tax rates on total taxable income?
A. $\$ 1,900,600,34 \%, 34 \%$, respectively
B. $\$ 1,972,000,34 \%, 34 \%$, respectively
C. $\$ 2,070,600,34 \%, 34 \%$, respectively
D. $\$ 2,142,000,34 \%, 34 \%$, respectively

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61. Corporate Taxes Suppose that in addition to the $\$ 300,000$ of taxable income from operations, Liam's Burgers, Inc. received $\$ 25,000$ of interest on state-issued bonds and $\$ 50,000$ of dividends on common stock it owns in Sodas, Inc. Using the tax schedule in Table 2.3 what is Liam's income tax liability? What are Liam's average and marginal tax rates on total taxable income?
A. $\$ 106,100,33.68 \%, 39 \%$, respectively
B. $\$ 122,850,39.00 \%, 39 \%$, respectively
C. $\$ 129,500,34.53 \%, 39 \%$, respectively
D. $\$ 139,250,37.13 \%, 39 \%$, respectively
62. Statement of Cash Flows Fina's Faucets, Inc. has net cash flows from operating activities for the last year of $\$ 17$ million. The income statement shows that net income is $\$ 15$ million and depreciation expense is $\$ 6$ million. During the year, the change in inventory on the balance sheet was an increase of $\$ 4$ million, change in accrued wages and taxes was an increase of $\$ 1$ million and change in accounts payable was an increase of $\$ 1$ million. At the beginning of the year the balance of accounts receivable was $\$ 5$ million. What was the end of year balance for accounts receivable?
A. $\$ 2$ million
B. $\$ 3$ million
C. $\$ 7$ million
D. $\$ 9$ million

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63. Statement of Cash Flows Zoe's Dog Biscuits, Inc. has net cash flows from operating activities for the last year of $\$ 226$ million. The income statement shows that net income is $\$ 150$ million and depreciation expense is $\$ 85$ million. During the year, the change in inventory on the balance sheet was an increase of $\$ 14$ million, change in accrued wages and taxes was an increase of $\$ 15$ million and change in accounts payable was an increase of $\$ 10$ million. At the beginning of the year the balance of accounts receivable was $\$ 45$ million. What was the end of year balance for accounts receivable?
A. $\$ 20$ million
B. $\$ 25$ million
C. $\$ 45$ million
D. $\$ 65$ million
64. Statement of Cash Flows Nickolas's Nut Farms, Inc. has net cash flows from operating activities for the last year of $\$ 25$ million. The income statement shows that net income is $\$ 15$ million and depreciation expense is $\$ 6$ million. During the year, the change in inventory on the balance sheet was a decrease of $\$ 4$ million, change in accrued wages and taxes was a decrease of $\$ 1$ million and change in accounts payable was a decrease of $\$ 1$ million. At the beginning of the year the balance of accounts receivable was $\$ 5$ million. What was the end of year balance for accounts receivable?
A. $\$ 2$ million
B. $\$ 3$ million
C. $\$ 7$ million
D. $\$ 9$ million

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65. Statement of Cash Flows Crispy Corporation has net cash flow from financing activities for the last year of $\$ 20$ million. The company paid $\$ 5$ million in dividends last year. During the year, the change in notes payable on the balance sheet was an increase of $\$ 2$ million, and change in common and preferred stock was an increase of $\$ 3$ million. The end of year balance for longterm debt was $\$ 45$ million. What was their beginning of year balance for long-term debt?
A. $\$ 15$ million
B. $\$ 20$ million
C. $\$ 25$ million
D. $\$ 35$ million
66. Statement of Cash Flows Full Moon Productions Inc. has net cash flow from financing activities for the last year of $\$ 105$ million. The company paid $\$ 15$ million in dividends last year. During the year, the change in notes payable on the balance sheet was an increase of $\$ 40$ million, and change in common and preferred stock was an increase of $\$ 50$ million. The end of year balance for longterm debt was $\$ 50$ million. What was their beginning of year balance for long-term debt?
A. $\$ 5$ million
B. $\$ 20$ million
C. $\$ 30$ million
D. $\$ 35$ million

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67. Statement of Cash Flows Café Creations Inc. has net cash flow from financing activities for the last year of $\$ 25$ million. The company paid $\$ 15$ million in dividends last year. During the year, the change in notes payable on the balance sheet was a decrease of $\$ 40$ million, and change in common and preferred stock was an increase of $\$ 50$ million. The end of year balance for longterm debt was $\$ 40$ million. What was their beginning of year balance for long-term debt?
A. $\$ 10$ million
B. $\$ 20$ million
C. $\$ 30$ million
D. $\$ 40$ million
68. Free Cash Flow The 2010 income statement for Pete's Pumpkins shows that depreciation expense is $\$ 250$ million, EBIT is $\$ 500$ million, EBT is $\$ 320$ million, and the tax rate is 30 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 1,600$ million and net operating working capital was $\$ 640$ million. At the end of the year gross fixed assets was $\$ 2,000$ million. Pete's free cash flow for the year was $\$ 630$ million. What is their end of year balance for net operating working capital?
A. $\$ 24$ million
B. $\$ 264$ million
C. $\$ 654$ million
D. $\$ 1,064$ million

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69. Free Cash Flow The 2013 income statement for Lou's Shoes shows that depreciation expense is $\$ 2$ million, EBIT is $\$ 5$ million, EBT is $\$ 3$ million, and the tax rate is 40 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 16$ million and net operating working capital was $\$ 6$ million. At the end of the year gross fixed assets was $\$ 20$ million. Lou's free cash flow for the year was $\$ 4$ million. What is their end of year balance for net operating working capital?
A. $\$ 1.8$ million
B. $\$ 3.8$ million
C. $\$ 5.8$ million
D. $\$ 12.2$ million
70. Free Cash Flow The 2013 income statement for Paige's Purses shows that depreciation expense is $\$ 10$ million, EBIT is $\$ 25$ million, EBT is $\$ 15$ million, and the tax rate is 30 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 80$ million and net operating working capital was $\$ 30$ million. At the end of the year gross fixed assets was $\$ 100$ million. Paige's free cash flow for the year was $\$ 20$ million. What is their end of year balance for net operating working capital?
A. $\$ 10.5$ million
B. $\$ 14$ million
C. $\$ 20.5$ million
D. $\$ 30.5$ million

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71. Free Cash Flow The 2013 income statement for Betty's Barstools shows that depreciation expense is $\$ 100$ million, EBIT is $\$ 400$ million, and taxes are $\$ 120$ million. At the end of the year, the balance of gross fixed assets was $\$ 510$ million. The increase in net operating working capital during the year was $\$ 94$ million. Betty's free cash flow for the year was $\$ 625$ million. What was the beginning of year balance for gross fixed assets?
A. $\$ 359$ million
B. $\$ 380$ million
C. $\$ 849$ million
D. $\$ 1,094$ million
72. Free Cash Flow The 2013 income statement for John's Gym shows that depreciation expense is $\$ 20$ million, EBIT is $\$ 80$ million, and taxes are $\$ 24$ million. At the end of the year, the balance of gross fixed assets was $\$ 102$ million. The increase in net operating working capital during the year was $\$ 18$ million. John's free cash flow for the year was $\$ 41$ million. What was the beginning of year balance for gross fixed assets?
A. $\$ 43$ million
B. $\$ 85$ million
C. $\$ 84$ million
D. $\$ 163$ million

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73. Statement of Retained Earnings Bike and Hike, Inc. started the year with a balance of retained earnings of $\$ 100$ million and ended the year with retained earnings of $\$ 128$ million. The company paid dividends of $\$ 9$ million to the preferred stock holders and $\$ 22$ million to common stock holders. What was Bike and Hike's net income for the year?
A. $\$ 28$ million
B. $\$ 31$ million
C. $\$ 59$ million
D. $\$ 128$ million
74. Statement of Retained Earnings Soccer Starz, Inc. started the year with a balance of retained earnings of $\$ 25$ million and ended the year with retained earnings of $\$ 32$ million. The company paid dividends of $\$ 2$ million to the preferred stock holders and $\$ 6$ million to common stock holders. What was Soccer Starz's net income for the year?
A. $\$ 7$ million
B. $\$ 15$ million
C. $\$ 40$ million
D. $\$ 49$ million
75. Statement of Retained Earnings Jamaican Ice Cream Corp. started the year with a balance of retained earnings of $\$ 100$ million. The company reported net income for the year of $\$ 45$ million, paid dividends of $\$ 2$ million to the preferred stock holders and $\$ 15$ million to common stock holders. What is Jamaican Ice Cream's end of year balance in retained earnings?
A. $\$ 38$ million
B. $\$ 55$ million
C. \$128 million
D. $\$ 162$ million

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76. Income Statement The following is the 2013 income statement for Lamps, Inc.

# Lamps, Inc <br> Income Statement for Year Ending December 31, 2013 <br> (in millions of dollars) 

| Net sales | $\$ 100$ |
| :--- | ---: |
| Less: Cost of goods sold | $\underline{80}$ |
| Gross profits | 20 |
| Less: Depreciation | $\frac{5}{15}$ |
| Earnings before interest and taxes (EBIT) | -2 |
| Less: Interest | 13 |
| Earnings before taxes (EBT) | $\underline{5}$ |
| Less: Taxes | $\underline{\$ 8}$ |
| Net Income |  |

The CEO of Lamps wants the company to earn a net income of $\$ 12$ million in 2014. Cost of goods sold is expected to be 75 percent of net sales, depreciation expense is not expected to change, interest expense is expected to increase to $\$ 4$ million, and the firm's tax rate will be 40 percent. What is the net sales needed to produce net income of $\$ 12$ million?
A. $\$ 29$ million
B. $\$ 112$ million
C. $\$ 116$ million
D. $\$ 124$ million

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77. Income Statement You have been given the following information for Halle's Holiday Store Corp. for the year 2013:

Net sales $=\$ 50,000,000$;
Cost of goods sold $=\$ 35,000,000$; Addition
to retained earnings $=\$ 2,000,000$;
Dividends paid to preferred and common stockholders $=\$ 3,000,000$;
Interest expense $=\$ 3,000,000$.
The firm's tax rate is 30 percent.
In 2014, net sales are expected to increase by $\$ 5$ million, cost
of goods sold is expected to be 65 percent of net sales, expensed depreciation is expected to be the same as in 2013, interest expense is expected to be $\$ 2,500,000$,
the tax rate is expected to be 30 percent of EBT, and dividends paid to preferred and common stockholders will not change. What is the addition to retained earnings expected in 2014 ?
A. $\$ 2,000,000$
B. $\$ 5,325,000$
C. $\$ 8,447,500$
D. $\$ 10,304,643$
78. Free Cash Flow Martha's Moving Van 4U, Inc. had free cash flow during 2013 of $\$ 1$ million, EBIT of $\$ 30$ million, tax expense of $\$ 8$ million, and depreciation of $\$ 4$ million. Using this information, what was Martha's Accounts Payable ending balance in 2013?
A. $\$ 5$ million
B. $\$ 15$ million
C. $\$ 35$ million
D. $\$ 45$ million

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79. You are evaluating the balance sheet for Goodman's Bees Corporation. From the balance sheet you find the following balances: cash and marketable securities $=\$ 200,000$, accounts receivable $=\$ 1,100,000$, inventory $=\$ 2,000,000$, accrued wages and taxes $=\$ 500,000$, accounts payable $=$ $\$ 600,000$, and notes payable $=\$ 100,000$. Calculate Goodman's Bees' net working capital.
A. $\$ 2,000,000$
B. $\$ 2,100,000$
C. $\$ 1,400,000$
D. $\$ 1,900,000$
80. Zoeckler Mowing \& Landscaping's year-end 2011 balance sheet lists current assets of $\$ 350,000$, fixed assets of $\$ 325,000$, current liabilities of $\$ 145,000$, and long-term debt of $\$ 185,000$. Calculate Zoeckler's total stockholders' equity.
A. $\$ 115,000$
B. $\$ 490,000$
C. $\$ 345,000$
D. \$500,000
81. Reed's Birdie Shot, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 550,000$, interest expense $=\$ 43,000$, and net income $=\$ 300,000$. Calculate the 2013 taxes reported on the income statement.
A. $\$ 85,000$
B. $\$ 107,000$
C. $\$ 309,000$
D. $\$ 207,000$
82. Reed's Birdie Shot, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 555,000$, interest expense $=\$ 178,000$, and taxes $=\$ 148,000$. Reed's has no preferred stock outstanding and 100,000 shares of common stock outstanding. Calculate the 2013 earnings per share.
A. $\$ 3.49$
B. $\$ 2.29$
C. $\$ 3.14$
D. $\$ 2.79$
83. Oakdale Fashions Inc. had $\$ 255,000$ in 2013 taxable income. If the firm paid $\$ 82,100$ in taxes, what is the firm's average tax rate?
A. $34.70 \%$
B. $32.20 \%$
C. $29.90 \%$
D. $28.20 \%$
84. Hunt Taxidermy, Inc. is concerned about the taxes paid by the company in 2013. In addition to $\$ 36.5$ million of taxable income, the firm received $\$ 1,250,000$ of interest on state-issued bonds and $\$ 400,000$ of dividends on common stock it owns in Hunt Taxidermy, Inc. Calculate Hunt Taxidermy's taxable income.
A. $\$ 40,250,000$
B. $\$ 38,150,000$
C. $\$ 36,900,000$
D. $\$ 36,620,000$

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85. Ramakrishnan Inc. reported 2013 net income of $\$ 20$ million and depreciation of $\$ 1,500,000$. The top part of Ramakrishnan, Inc.'s 2012 and 2013 balance sheets is listed as follows (in millions of dollars).

|  | 2012 | 2013 |  | 2012 | 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  | Liabilities \& Equity |  |  |
| Current Assets |  |  | Current liabilities |  |  |
| Cash and marketable |  |  | Accrued wages and taxes | \$18 | \$20 |
| securities | \$15 | \$20 | Accounts payable | 45 | 50 |
| Accounts receivable | 75 | 84 | Notes payable | 40 | 45 |
| Inventory | 110 | 121 |  |  |  |
| Total | \$200 | \$225 | Total | \$103 | \$115 |

Calculate the 2013 net cash flow from operating activities for Ramakrishnan, Inc.
A. $\$ 12,500,000$
B. $\$ 10,500,000$
C. $\$ 8,500,000$
D. $\$ 7,100,000$
86. In 2014, Usher Sports Shop had cash flows from investing activities of ( $\$ 2,150,000$ ) and cash flows from financing activities of $(\$ 3,219,000)$. The balance in the firm's cash account was $\$ 980,000$ at the beginning of 2014 and $\$ 1,025,000$ at the end of the year. Calculate Usher Sports Shop's cash flow from operations for 2014.
A. $\$ 6,219,000$
B. $\$ 5,414,000$
C. $\$ 4,970,000$
D. $\$ 5,980,000$

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87. You are considering an investment in Fields and Struthers, Inc. and want to evaluate the firm's free cash flow. From the income statement, you see that Fields and Struthers earned an EBIT of $\$ 52$ million, paid taxes of $\$ 10$ million, and its depreciation expense was $\$ 5$ million. Fields and Struthers' gross fixed assets increased by $\$ 38$ million from 2012 to 2013. The firm's current assets increased by $\$ 20$ million and spontaneous current liabilities increased by $\$ 12$ million. Calculate Fields and Struthers' operating cash flow (OCF), investment in operating capital (IOC), and free cash flow (FCF) for 2013.
A. OCF $=\$ 42,000,000 ;$ IOC $=\$ 37,000,000 ;$ FCF $=\$ 5,000,000$
B. $\mathrm{OCF}=\$ 47,000,000 ; \mathrm{IOC}=\$ 37,000,000 ;$ FCF $=\$ 10,000,000$
C. OCF $=\$ 42,000,000 ;$ IOC $=\$ 46,000,000 ;$ FCF $=-\$ 4,000,000$
D. $O C F=\$ 47,000,000 ; I O C=\$ 46,000,000 ; F C F=\$ 1,000,000$
88. Tater and Pepper Corp. reported free cash flows for 2013 of $\$ 20$ million and investment in operating capital of $\$ 15$ million. Tater and Pepper listed $\$ 8$ million in depreciation expense and $\$ 12$ million in taxes on its 2010 income statement. Calculate Tater and Pepper's 2013 EBIT.
A. \$49,000,000
B. $\$ 42,000,000$
C. $\$ 39,000,000$
D. $\$ 47,000,000$

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89. Mr. Husker's Tuxedos, Corp. began the year 2013 with $\$ 205$ million in retained earnings. The firm earned net income of $\$ 30$ million in 2013 and paid $\$ 5$ million to its preferred stockholders and $\$ 12$ million to its common stockholders. What is the year-end 2013 balance in retained earnings for Mr. Husker's Tuxedos?
A. $\$ 193,000,000$
B. $\$ 200,000,000$
C. $\$ 213,000,000$
D. $\$ 218,000,000$
90. Brenda's Bar and Grill has total assets of $\$ 17$ million of which $\$ 5$ million are current assets. Cash makes up 12 percent of the current assets and accounts receivable makes up another 40 percent of current assets. Brenda's gross plant and equipment has a cost value of $\$ 12$ million and other long-term assets have a cost value of $\$ 1,000,000$. Using this information, what are the balance of inventory and the balance of depreciation on Brenda's Bar and Grill's balance sheet?
A. $\$ 2.4$ million; $\$ 1$ million
B. $\$ 3.4$ million; $\$ 2$ million
C. $\$ 1.4$ million; $\$ 1$ million
D. $\$ 0.4$ million; $\$ 3$ million

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91. Ed's Tobacco Shop has total assets of $\$ 100$ million. Fifty percent of these assets are financed with debt of which $\$ 37$ million is current liabilities. The firm has no preferred stock but the balance in common stock and paid-in surplus is $\$ 32$ million. Using this information what is the balance for long-term debt and retained earnings on Ed's Tobacco Shop's balance sheet?
A. $\$ 18$ million; $\$ 27$ million
B. $\$ 12$ million; $\$ 12$ million
C. \$14 million; \$29 million
D. $\$ 13$ million; $\$ 18$ million
92. Muffin's Masonry, Inc.'s balance sheet lists net fixed assets as $\$ 16$ million. The fixed assets could currently be sold for $\$ 17$ million. Muffin's current balance sheet shows current liabilities of $\$ 5.5$ million and net working capital of $\$ 6.5$ million. If all the current accounts were liquidated today, the company would receive $\$ 10.25$ million cash after paying $\$ 5.5$ million in liabilities. What is the book value of Muffin's Masonry's assets today? What is the market value of these assets?
A. Book Value: $\$ 28 \mathrm{~m}$; Market Value: $\$ 32.75 \mathrm{~m}$
B. Book Value: $\$ 32 \mathrm{~m}$; Market Value: $\$ 42.25 \mathrm{~m}$
C. Book Value: $\$ 32 \mathrm{~m}$; Market Value: $\$ 32.75 \mathrm{~m}$
D. Book Value: \$28m; Market Value: $\$ 42.25 \mathrm{~m}$

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93. You have been given the following information for Corky's Bedding Corp.:

Net sales $=\$ 15,250,000$;
Cost of goods sold $=\$ 5,750,000$; Addition
to retained earnings $=\$ 4,000,000$;

Dividends paid to preferred and common stockholders = \$995,000;
Interest expense $=\$ 1,150,000$.
The firm's tax rate is 30 percent. Calculate the depreciation expense for Corky's Bedding Corp.
A. $\$ 1,210,000$
B. $\$ 1,970,000$
C. $\$ 1,520,000$
D. $\$ 1,725,000$
94. Dogs 4 U Corporation has net cash flow from financing activities for the last year of $\$ 10$ million. The company paid $\$ 8$ million in dividends last year. During the year, the change in notes payable on the balance was $\$ 9$ million, and change in common and preferred stock was $\$ 0$ million. The end of year balance for long-term debt was $\$ 44$ million. Calculate the beginning of year balance for long-term debt.
A. $\$ 37$ million
B. $\$ 34$ million
C. $\$ 33$ million
D. $\$ 35$ million

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95. The 2011 income statement for Duffy's Pest Control shows that depreciation expense is $\$ 180$ million, EBIT is $\$ 420$ million, EBT is $\$ 240$ million, and the tax rate is 30 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 1,500$ million and net operating working capital was $\$ 500$ million. At the end of the year gross fixed assets was $\$ 1,803$ million. Duffy's free cash flow for the year was $\$ 425$ million. Calculate the end of year balance for net operating working capital.
A. $\$ 403$ million
B. $\$ 300$ million
C. $\$ 203$ million
D. $\$ 103$ million
96. The CEO of Tom and Sue's wants the company to earn a net income of $\$ 3.25$ million in 2014. Cost of goods sold is expected to be 60 percent of net sales, depreciation expense is $\$ 2.9$ million, interest expense is expected to increase to $\$ 1.050$ million, and the firm's tax rate will be 30 percent. Calculate the net sales needed to produce net income of $\$ 3.25$ million.
A. $\$ 26.02$ million
B. $\$ 29.36$ million
C. $\$ 21.48$ million
D. $\$ 28.25$ million
97. All of the following would be a result of changing to the MACRS method of depreciation EXCEPT:
A. higher depreciation expense.
B. lower taxes in the early years of a project's life.
C. lower taxable income in the early years of a project's life.
D. All of the above.

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98. Which of the following is NOT a source of cash?
A. The firm reduces its inventory.
B. The firm pays off some of its long-term debt.
C. The firm has positive net income.
D. The firm sells more common stock.
99. Which of the following is a use of cash?
A. The firm takes its depreciation expense.
B. The firm sells some of its fixed assets.
C. The firm issues more long-term debt.
D. The firm decreases its accrued wages and taxes.
100. Is it possible for a firm to have positive net income and yet to have cash flow problems?
A. No, this is impossible since net income increases the firm's cash.
B. Yes, this can occur when a firm is growing very rapidly.
C. Yes, this is possible if the firm window-dressed its financial statements.
D. No, this is impossible since net income and cash are highly correlated.
101. All of the following are cash flows from operations EXCEPT:
A. increases or decreases in cash.
B. net income.
C. depreciation.
D. increases or decreases in accounts payable.
102. All of the following are cash flows from financing EXCEPT a(n):
A. increase in accounts payable.
B. issuing stock.
C. stock repurchases.
D. paying dividends.
103. Cash flows available to pay the firm's stockholders and debt holders after the firm has made the necessary working capital investments, fixed asset investments, and developed the necessary new products to sustain the firm's ongoing operations is referred to as:
A. operating cash flow.
B. net operating working capital.
C. free cash flow.
D. None of the above.
104. Investment in operating capital is:
A. the change in assets plus the change in current liabilities.
B. the change in gross fixed assets plus depreciation.
C. the change in gross fixed assets plus the change in free cash flow.
D. None of the above.

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105. A firm had EBIT of $\$ 1,000$, paid taxes of $\$ 225$, expensed depreciation at $\$ 13$, and its gross fixed assets increased by $\$ 25$. What was the firm's operating cash flow?
A. $\$ 763$
B. $\$ 737$
C. $\$ 813$
D. $\$ 788$
106. Which of the following is an example of a capital structure?
A. 15 percent current assets and 85 percent fixed assets
B. 10 percent current liabilities and 90 percent long-term debt
C. 20 percent debt and 80 percent equity
D. None of the above
107. Lemmon Inc. lists fixed assets of $\$ 100$ on its balance sheet. The firm's fixed assets have recently been appraised at $\$ 140$. The firm's balance sheet also lists current assets at $\$ 15$. Current assets were appraised at $\$ 16.50$. Current liabilities book and market values stand at $\$ 12$ and the firm's longterm debt is $\$ 40$. Calculate the market value of the firm's stockholders' equity.
A. $\$ 156.50$
B. $\$ 112.50$
C. $\$ 104.50$
D. $\$ 144.50$

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108. A firm has operating income of $\$ 1,000$, depreciation expense of $\$ 185$, and its investment in operating capital is $\$ 400$. The firm is 100 percent equity financed and has a 35 percent tax rate. What is the firm's operating cash flow?
A. $\$ 725$
B. $\$ 795$
C. $\$ 835$
D. $\$ 965$
109. All of the following are reasons that one should be cautious in interpreting financial statements EXCEPT:
A. Firms can take steps to over- or understate earnings at various times.
B. It is difficult to compare two firms that use different depreciation methods.
C. Financial managers have quite a bit of latitude in using accounting rules to manage their reported earnings.
D. All of these are reasons to be cautious in interpreting financial statements.
110. Which of the following statements is correct?
A. The bottom line on the statement of cash flows equals the change in the retained earnings on the balance sheet.
B. The reason the statement of cash flows is important is because cash is what pays the firm's obligations, not accounting profit.
C. If a firm has accounting profit, its cash account will always increase.
D. All of these statements are correct.

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111. ABC Inc. has $\$ 100$ in cash on its balance sheet at the end of 2009. During 2010, the firm issued $\$ 450$ in common stock, reduced its notes payable by $\$ 40$, purchased fixed assets in the amount of $\$ 750$, and had cash flows from operating activities of $\$ 315$. How much cash did ABC Inc. have on its balance sheet at the end of 2010?
A. $\$ 75$
B. $\$ 140$
C. $\$ 225$
D. $-\$ 25$
112. LLV Inc. originally forecasted the following financial data for next year: sales $=\$ 1,000$, cost of goods sold $=\$ 675$, and interest expense $=\$ 90$. The firm believes that COGS will always be 67.5 percent of sales. Due to increased global demand, the firm is now projecting that sales will be 20 percent higher than the original forecast. What is the additional net income (as compared to the original forecast) the firm can expect assuming a 35 percent tax rate?
A. $\$ 59.45$
B. $\$ 195.00$
C. $\$ 42.25$
D. $\$ 74.00$

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113. LLV Inc. originally forecasted the following financial data for next year: sales $=\$ 1,000$, cost of goods sold $=\$ 710$, and interest expense $=\$ 95$. The firm believes that COGS will always be 71 percent of sales. Due to pressure from shareholders, the firm wants to achieve a net income of $\$ 150$. Assuming the interest expense will remain the same, how large must sales be to achieve this goal? Assume a 35 percent tax rate.
A. $\$ 1,403.82$
B. $\$ 1,3009.18$
C. \$1,123.34
D. $\$ 1,296.51$
114. A firm has sales of $\$ 690$, EBIT of $\$ 300$, depreciation of $\$ 40$, and fixed assets increased by $\$ 265$. If the firm's tax rate is 40 percent and there were no increases in net operating working capital, what is the firm's free cash flow?
A. $\$ 15$
B. $\$ 75$
C. $-\$ 45$
D. $-\$ 55$
115. GW Inc. had $\$ 800$ million in retained earnings at the beginning of the year. During the year, the firm paid $\$ 0.75$ per share dividend and generated $\$ 1.92$ earnings per share. The firm has 100 million shares outstanding. At the end of year, what was the level of retained earnings for GW?
A. $\$ 725$ million
B. $\$ 917$ million
C. $\$ 882$ million
D. $\$ 807$ million

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Essay Questions
116. Statement of Cash Flows Use the following balance sheet and income statement to construct a statement of cash flows for Betty's Bakery Corp.

Betty's Bakery Corp.
Balance Sheet as of December 31, 2012 and 2013
(in millions of dollars)
$20122013 \quad 2012 \quad 2013$

| Assets |  |  |  |  |  |
| :--- | ---: | ---: | :--- | ---: | ---: |
| Current Assets <br> Cash and marketable | $\$ 12$ | $\$ 5$ | Liabilities \& Equity <br> Current liabilities <br> Accrued wages and taxes <br> Accounts payable | $\$ 5$ | 18 |

Betty's Bakery Corp.
Income Statement for Years Ending December 2012 and 2013
(in millions of dollars)
Net Sales
Less: Cost of goods sold
Gross profits
Less: Depreciation
Earnings before interest and taxes (EBIT)
Less: Interest
Earnings before taxes (EBT)
Less: Taxes
Net income

| $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ |
| ---: | :---: |
| $\$ 33$ | $\$ 40.5$ |
| 8 | 11 |
| $\$ 25$ | $\$ 29.5$ |
| 2 | 2 |
| $\$ 23$ | $\$ 27.5$ |
| 1 | 1.5 |
| $\$ 22$ | $\$ 26$ |
| 9 | 10 |
| $\$ 13$ | $\$ 16$ |

Less: Preferred stock dividends
Net income available to common stockholders
Less: Common stock dividends
Addition to retained earnings

| $\$ 1$ | $\$ 1$ |
| :--- | :--- |
| $\$ \$ 12$ | $\$ 15$ |
| $\$ 1$ | $\$ 2$ |
| $\$ \$ 11$ | $\$ 13$ |

Per (common) share data:

| Earnings per share (EPS) | $\$ 6.75$ | $\$ 4.00$ |
| :--- | ---: | ---: |
| Dividends per share (DPS) | $\$ 0.25$ | $\$ 0.50$ |
| Book value per share (BV) | $\$ 22.00$ | $\$ 23.75$ |
| Market value per share (MV) | $\$ 24.00$ | $\$ 24.25$ |

117. When might earnings management become an ethical consideration?
118. How do taxes influence how corporate managers and investors structure transactions and capitalize their companies?
119. How would you explain to a friend why market value of a firm is more important to an investor than book value of the firm?
120.What are free cash flows for a firm? What does it mean when a firm's free cash flow is negative?
120. What are the costs and benefits of holding liquid securities on a firm's balance sheet?

# Chapter 02 Reviewing Financial Statements Answer Key 

Multiple Choice Questions

1. Which financial statement reports a firm's assets, liabilities, and equity at a particular point in time?
A. Balance sheet
B. Income statement
C. Statement of retained earnings
D. Statement of cash flows

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand Difficulty: 1 Easy

Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance Sheet
2. Which financial statement shows the total revenues that a firm earns and the total expenses the firm incurs to generate those revenues over a specific period of time-generally one year?
A. Balance sheet
B. Income statement
C. Statement of retained earnings
D. Statement of cash flows

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3. Which financial statement reports the amounts of cash that the firm generated and distributed during a particular time period?
A. Balance sheet
B. Income statement
C. Statement of retained Earnings
D. Statement of cash Flows

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand Difficulty: 1 Easy Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

Topic: Statement of Cash Flows
4. Which financial statement reconciles net income earned during a given period and any cash dividends paid within that period using the change in retained earnings between the beginning and end of the period?
A. Balance sheet
B. Income statement
C. Statement of retained earnings
D. Statement of cash flows

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5. On which of the four major financial statements would you find the common stock and paidin surplus?
A. Balance sheet
B. Income statement
C. Statement of cash flows
D. Statement of retained earnings

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Easy Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

Topic: Balance Sheet
6. On which of the four major financial statements would you find the increase in inventory?
A. Balance sheet
B. Income statement
C. Statement of cash flows
D. Statement of retained earnings

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand
Difficulty: 1 Easy

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7. On which of the four major financial statements would you find net plant and equipment?
A. Balance sheet
B. Income statement
C. Statement of cash flows
D. Statement of retained earnings

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand Difficulty: 1 Easy Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide. Topic: Balance Sheet
8. Financial statements of publicly traded firms can be found in a number of places. Which of the following is NOT an option for finding publicly traded firms' financial statements?
A. Facebook
B. A firm's website
C. Securities and Exchange Commission's (SEC) website
D. Websites such as finance.yahoo.com

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Blooms: Remember Difficulty: 1 Easy

Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Financial Statements

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9. For which of the following would one expect the book value of the asset to differ widely from its market value?
A. Cash
B. Accounts receivable
C. Inventory
D. Fixed assets

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Book Value versus Market Value
10. Common stockholders' equity divided by number of shares of common stock outstanding is the formula for calculating
A. Earnings per share (EPS).
B. Dividends per share (DPS).
C. Book value per share (BVPS).
D. Market value per share (MVPS).

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Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 02-02 Differentiate between book (or accounting) value and market value.

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11. When a firm alters its capital structure to include more or less debt (and, in turn, less or more equity), it impacts which of the following?
A. The residual cash flows available for stock holders
B. The number of shares of stock outstanding
C. The earnings per share (EPS)
D. All of the choices

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Debt versus Equity Financing
12. This is the amount of additional taxes a firm must pay out for every additional dollar of taxable income it earns.
A. Average tax rate
B. Marginal tax rate
C. Progressive tax system
D. Earnings before tax

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Accessibility: Keyboard Navigation
Blooms: Understand

Difficulty: 1 Easy
Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.

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13. An equity-financed firm will:
A. pay more in income taxes than a debt-financed firm.
B. pay less in income taxes than a debt-financed firm.
C. pay the same in income taxes as a debt-finance firm.
D. not pay any income taxes.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes
14. Deferred taxes occur when a company postpones taxes on profits pertaining to:
A. tax years they are under an audit by the Internal Revenue Service.
B. funds they have not collected because they use the accrual method of accounting.
C. a loss they intend to carry back or carry forward on their income tax returns.
D. a particular period as they end up postponing part of their tax liability on this year's profits to future years.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes

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15. Net operating profit after taxes (NOPAT) is defined as which of the following?
A. Net profit a firm earns before taxes, but after any financing costs
B. Net profit a firm earns after taxes, and after any financing cots
C. Net profit a firm earns after taxes, but before any financing costs
D. Net profit a firm earns before taxes, and before any financing cost

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-04 Differentiate between accounting income and cash flows.
Topic: Free Cash Flow
16. This is cash flow available for payments to stockholders and debt holders of a firm after the firm has made investments in assets necessary to sustain the ongoing operations of the firm.
A. Net income available to common stockholders
B. Cash flow from operations
C. Net cash flow
D. Free cash flow

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand Difficulty: 1 Easy

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17. Which of the following activities result in an increase in a firm's cash?
A. Decrease fixed assets
B. Decrease accounts payable
C. Pay dividends
D. Repurchase of common stock

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows. Topic: Sources and Uses of Cash
18. These are cash inflows and outflows associated with buying and selling of fixed or other long-term assets.
A. Cash flows from operations
B. Cash flows from investing activities
C. Cash flows from financing activities
D. Net change in cash and cash equivalents

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Easy Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.

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19. If a company reports a large amount of net income on its income statement during a year, the firm will have:
A. positive cash flow.
B. negative cash flow.
C. zero cash flow.
D. Any of these scenarios are possible.

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Sources and Uses of Cash
20. Free cash flow is defined as:
A. cash flows available for payments to stockholders of a firm after the firm has made payments to all others will claims against it.
B. cash flows available for payments to stockholders and debt holders of a firm after the firm has made payments necessary to vendors.
C. cash flows available for payments to stockholders and debt holders of a firm after the firm has made investments in assets necessary to sustain the ongoing operations of the firm.
D. cash flows available for payments to stockholders and debt holders of a firm that would be tax-free to the recipients.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation

Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Free Cash Flow

## 2-63

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21. The Sarbanes-Oxley Act requires public companies to ensure which of the following individuals have considerable experience applying generally accepted accounting principles (GAAP) for financial statements.
A. External auditors
B. Internal auditors
C. Chief financial officers
D. Corporate boards' audit committees

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-06 Observe cautions that should be taken when examining financial statements.
Topic: GAAP Accounting Principles

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22. Balance Sheet You are evaluating the balance sheet for Campus Corporation. From the balance sheet you find the following balances: cash and marketable securities $=\$ 400,000$, accounts receivable $=\$ 200,000$, inventory $=\$ 100,000$, accrued wages and taxes $=\$ 10,000$, accounts payable $=\$ 300,000$, and notes payable $=\$ 600,000$. What is Campus's net working capital?
A. $-\$ 210,000$
B. $\$ 700,000$
C. $\$ 910,000$
D. $\$ 1,610,000$
net working capital = current assets - current liabilities.
Cypress's current assets =
Cash and marketable securities $=\$ 400,000$
Accounts receivable $=\$ 200,000$
Inventory $\quad=\$ 100,000$
Total current assets $\quad \$ 700,000$
and current liabilities $=$
Accrued wages and taxes $=\$ 10,000$
Accounts payable $=\$ 300,000$
Notes payable $=\$ \underline{600,000}$
Total current liabilities $\$ 910,000$

So the firm's net working capital was -\$210,000 (\$700,000-\$910,000).

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23. Balance Sheet Jack and Jill Corporation's year-end 2013 balance sheet lists current assets of $\$ 250,000$, fixed assets of $\$ 800,000$, current liabilities of $\$ 195,000$, and long-term debt of $\$ 300,000$. What is Jack and Jill's total stockholders' equity?
A. $\$ 495,000$
B. $\$ 555,000$
C. $\$ 1,050,000$
D. There is not enough information to calculate total stockholder's equity.

Recall the balance sheet identity in Equation 2-1: Assets $=$ Liabilities + Equity.
Rearranging this equation: Equity = Assets - Liabilities. Thus, the balance sheets would appear as follows:

Book value

Assets
Current assets $\$ 250,000$
Fixed assets $\quad 800,000$
Total
\$1,050,000

| Book value |  |
| :--- | ---: |
| Liabilities and Equity |  |
| Current liabilities | $\$ 195,000$ |
| Long-term debt | 300,000 |
| Stockholders' equity | $\$ 55,000$ |
| Total | $\$ 1,050,000$ |

AACSB: Analytic
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
24. Income Statement Bullseye, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 900,000$, interest expense $=\$ 85,000$, and net income $=\$ 570,000$. What are the 2013 taxes reported on the income statement?
A. $\$ 245,000$
B. $\$ 330,000$
C. $\$ 815,000$
D. There is not enough information to calculate 2013 taxes.

Using the setup of an Income Statement in Table 2.2:

| EBIT | $\$ 900,000$ |
| :--- | ---: |
| Interest expense | $\underline{-85,000}$ |
| EBT | $\underline{815,000}$ |
| Taxes | $\underline{-245,000}$ |
| Net income | $\$ 570,000$ |

AACSB: Analytic
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement

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25. Income Statement Consider a firm with an EBIT of $\$ 500,000$. The firm finances its assets with $\$ 2,000,000$ debt (costing 6 percent) and 50,000 shares of stock selling at $\$ 20.00$ per share. To reduce the firm's risk associated with this financial leverage, the firm is considering reducing its debt by $\$ 1,000,000$ by selling an additional 50,000 shares of stock. The firm is in the 40 percent tax bracket. The change in capital structure will have no effect on the operations of the firm.

Thus, EBIT will remain $\$ 500,000$. What is the change in the firm's EPS from this change in capital structure?
A. Decrease EPS by $\$ 1.68$
B. Decrease EPS by $\$ 1.92$
C. Decrease EPS by $\$ 3.20$
D. Increase EPS by $\$ 0.72$

Using the setup of an Income Statement in Example 2.2:

Before Capital Structure Change After Capital Structure Change
Change
EBIT
$\$ 500,000 \quad \$ 500,000$
-Interest $(\$ 2,000,000 \times 0.06) 120,000$

- Interest ( $\$ 1,000,000 \times 0.06$ )
$\$ 380,000$
60,000
EBT
-Taxes $(40 \%)$
Net Income
Divide \# of Shares
$\begin{array}{r}\$ 380,000 \\ 152,000 \\ \hline\end{array}$
$\$ 440,000$

EPS
50,000
176,000
$\$ 4.56$
$\$ 264,000$
100,000

The change in capital structure would dilute the stockholders' EPS by $\$ 1.92$

AACSB: Analytic Blooms: Apply

Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

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26. Income Statement Consider a firm with an EBIT of $\$ 5,000,000$. The firm finances its assets with $\$ 20,000,000$ debt (costing 5 percent) and 70,000 shares of stock selling at $\$ 50.00$ per share. To reduce the firm's risk associated with this financial leverage, the firm is considering reducing its debt by $\$ 5,000,000$ by selling an additional 100,000 shares of stock. The firm is in the 40 percent tax bracket. The change in capital structure will have no effect on the operations of the firm.

Thus, EBIT will remain $\$ 5,000,000$. What is the change in the firm's EPS from this change in capital structure?
A. Decrease EPS by $\$ 9.29$
B. Decrease EPS by $\$ 18.70$
C. Decrease EPS by $\$ 19.29$
D. Increase EPS by $\$ 2.14$

Using the setup of an Income Statement in Example 2.2:

| Before | pital Structure Change | After Capital Structure Change |
| :---: | :---: | :---: |
| Change |  |  |
| EBIT | \$5,000,000 | \$5,000,000 |
| -Interest ( $\$ 20,000,000 \times 0.05$ ) | 1.000,000 |  |
| -Interest (\$15,000,000 $\times 0.05$ ) |  | 750,000 |
| EBT | \$4,000,000 | \$4,250,000 |
| -Taxes (40\%) | 1.600,000 | 1.700,000 |
| Net Income | \$2,400,000 | \$2,550,000 |
| Divide \# of Shares | 70,000 | 170.000 |
| EPS | \$34,29 | \$15.00 |

The change in capital structure would dilute the stockholders' EPS by $\$ 19.29$

Difficulty: 1 Easy

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27. Income Statement Barnyard, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 500,000$, interest expense $=\$ 45,000$, and taxes $=\$ 152,000$. Barnyard's has no preferred stock outstanding and 200,000 shares of common stock outstanding. What are its 2013 earnings per share?
A. $\$ 2.50$
B. $\$ 2.275$
C. $\$ 1.74$
D. $\$ 1.515$

Using the setup of an Income Statement in Table 2.2:

| EBIT | $\$ 500,000$ |
| :--- | ---: |
| Interest expense | $\underline{-45,000}$ |
| EBT | 455,000 |
| Taxes | $\underline{-152,000}$ |
| Net income | $\$ 303,000$ |

Thus,
Earnings per share (EPS) $=\frac{\$ 303,000}{200,000}=\$ 1.515$ per share

# 2-70 

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28. Corporate Taxes Eccentricity, Inc. had \$300,000 in 2013 taxable income. Using the tax schedule from Table 2-3, what are the company's 2013 income taxes, average tax rate, and marginal tax rate, respectively?
Taxable income
$\$ 0-\$ 50,000$
$\$ 50,001-\$ 75,000$
$\$ 75,001-\$ 100,000$
$\$ 100,001-\$ 335,000$
$\$ 335,000-\$ 10,000,000$

Pay this amount on Base income
\$ 0
$\$ 7,500$
\$13,500
\$22,250
\$113,900

Plus this percentage on anything over the base

15\%
$25 \%$
$34 \%$
$39 \%$
$34 \%$
A. $\$ 22,250,7.42 \%, 39 \%$
B. $\$ 78,000,26.00 \%, 39 \%$
C. $\$ 100,250,33.42 \%, 39 \%$
D. $\$ 139,250,46.42 \%, 39 \%$

From Table 2.3, the $\$ 300,000$ of taxable income puts Eccentricity in the 39 percent marginal tax bracket. Thus,

Tax liability $=$ Tax on base amount + Tax rate (amount over base): $=\$ 22,250+.39(\$ 300,000$
$-\$ 100,000)=\$ 100,250$
Note that the base amount is the maximum dollar value listed in the previous tax bracket.
The average tax rate for Eccentricity Inc. comes to:


If Eccentricity earned $\$ 1$ more of taxable income, it would pay 39 cents (its tax rate of
39 percent) more in taxes. Thus, the firm's marginal tax rate is 39 percent.

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29. Corporate Taxes Swimmy, Inc. had $\$ 400,000$ in 2013 taxable income. Using the tax schedule from Table 2-3, what are the company's 2013 income taxes, average tax rate, and marginal tax rate, respectively?
Taxable income
$\$ 0-\$ 50,000$
$\$ 50,001-\$ 75,000$
$\$ 75,001-\$ 100,000$
$\$ 100,001-\$ 335,000$
$\$ 335,000-\$ 10,000,000$

| Pay this amount on | Plus this percentage on <br> anything over the base |
| :---: | :---: |
| Base income | $15 \%$ |
| $\$ 0$ | $25 \%$ |
| $\$ 7,500$ | $34 \%$ |
| $\$ 13,500$ | $39 \%$ |
| $\$ 22,250$ | $34 \%$ |
| $\$ 113,900$ |  |

A. $\$ 22,100,5.53 \%, 34 \%$
B. $\$ 113,900,28.48 \%, 34 \%$
C. $\$ 136,000,34.00 \%, 34 \%$
D. $\$ 136,000,39.00 \%, 34 \%$

From Table 2.3, the $\$ 400,000$ of taxable income puts Swimmy in the 34 percent marginal tax bracket. Thus, Tax liability = Tax on base amount + Tax rate (amount over base): = \$113,900 $+0.34(\$ 400,000-\$ 335,000)=\$ 136,000$

Note that the base amount is the maximum dollar value listed in the previous tax bracket. The average tax rate for Swimmy Inc. comes to:


If Swimmy earned $\$ 1$ more of taxable income, it would pay 34 cents (its tax rate of 34 percent) more in taxes. Thus, the firm's marginal tax rate is 34 percent.

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30. Corporate Taxes Scuba, Inc. is concerned about the taxes paid by the company in 2013. In addition to $\$ 5$ million of taxable income, the firm received $\$ 80,000$ of interest on state-issued bonds and \$500,000 of dividends on common stock it owns in Boating Adventures, Inc. What are Scuba's tax liability, average tax rate, and marginal tax rate, respectively?
A. $\$ 1,637,100,31.79 \%, 34 \%$
B. $\$ 1,751,000,34.00 \%, 34 \%$
C. $\$ 1,870,000,34.00 \%, 34 \%$
D. $\$ 1,983,900,36.07 \%, 34 \%$

In this case, interest on the state-issued bonds is not taxable and should not be included in taxable income. Further, the first 70 percent of the dividends received from Boating Adventures is not taxable. Thus, only 30 percent of the dividends received are taxed, so:

Taxable income $=\$ 5,000,000+(0.3) \$ 500,000=\$ 5,150,000$
Now Scuba's tax liability will be: Tax liability $=\$ 113,900+0.34(\$ 5,150,000-\$ 335,000)$
$=\$ 1,751,000$
The $\$ 500,000$ of dividend income increased Scuba's tax liability by $\$ 51,000(=(0.3) \times \$ 500,000$ $\times(0.34))$. Scuba's resulting average tax rate is now: Average tax rage $=\$ 1,751,000 / \$ 5,150,000=$ 34.00\%.

Finally, if Scuba earned $\$ 1$ more of taxable income, it would still pay 34 cents (based upon its marginal tax rate of 34 percent) more in taxes.

Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes

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31. Statement of Cash Flows Paige's Properties Inc. reported 2013 net income of $\$ 5$ million and depreciation of $\$ 1,500,000$. The top part Paige's Properties, Inc.'s 2012 and 2013 balance sheets is listed as follows (in millions of dollars).

| Current assets <br> Cash and marketable | 2012 | 2013 | Current liabilities <br> Acerued wages and | 2012 | 2013 |
| :--- | ---: | ---: | :--- | ---: | ---: |
| securities | $\$ 10$ | $\$ 20$ | taxes | $\$ 5$ | $\$ 11$ |
| Accounts receivable | 20 | 34 | Accounts payable | 25 | 29 |
| Inventory | $\underline{10}$ | 11 | Notes payable | $\underline{10}$ | 25 |
| Total | $\$ 40$ | $\$ 65$ | Total | $\$ 40$ | $\$ 65$ |

What is the 2013 net cash flow from operating activities for Paige's Properties, Inc.?
A. $-\$ 13,500,000$
B. $\$ 1,500,000$
C. $\$ 5,000,000$
D. $\$ 6,500,000$

## Cash Flows from Operating Activities

| Net income | $\$ 5,000,000$ |
| :--- | ---: |
| Additions (sources of cash): |  |
| $\quad 1,500,000$ |  |
| Depreciation | $6,000,000$ |
| Increase accrued wages and taxes | $4,000,000$ |
| $\quad$ Increase in accounts payable | $-14,000,000$ |
| Subtractions (uses of cash): | $-1,000,000$ |
| $\quad$ Increase in accounts receivable | $\$ 1,500,000$ |

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32. Statement of Cash Flows In 2013, Upper Crust had cash flows from investing activities of $(\$ 250,000)$ and cash flows from financing activities of $(\$ 150,000)$. The balance in the firm's cash account was $\$ 90,000$ at the beginning of 2013 and $\$ 105,000$ at the end of the year. What was Upper Crust's cash flow from operations for 2013?
A. $\$ 15,000$
B. $\$ 105,000$
C. $\$ 400,000$
D. $\$ 415,000$

Net change in cash and marketable securities $=\$ 105,000-\$ 90,000=\$ 15,000$

Cash Flows from Operating Activities $\quad=\$ 415,000$
Cash Flows from Investing Activities $=-250,000$
Cash Flows from Financing Activities $\quad=-\underline{150,000}$
Net Change in Cash and Marketable Securities $=\$ 15,000$

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33. Statement of Cash Flows In 2013, Lower Case Productions had cash flows from investing activities of $+\$ 50,000$ and cash flows from financing activities of $+\$ 100,000$. The balance in the firm's cash account was $\$ 80,000$ at the beginning of 2013 and $\$ 65,000$ at the end of the year. What was Lower Case's cash flow from operations for 2013?
A. $-\$ 15,000$
B. $-\$ 150,000$
C. $-\$ 165,000$
D. $-\$ 65,000$

Net change in cash and marketable securities $=\$ 65,000-\$ 80,000=-\$ 15,000$

Cash Flows from Operating Activities $\quad=\mathbf{- \$ 1 6 5 , 0 0 0}$
Cash Flows from Investing Activities $\quad=+50,000$
Cash Flows from Financing Activities $=+\underline{100,000}$
Net Change in Cash and Marketable Securities $=-\$ 15,000$

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34. Free Cash Flow You are considering an investment in Crew Cut, Inc. and want to evaluate the firm's free cash flow. From the income statement, you see that Crew Cut earned an EBIT of $\$ 23$ million, paid taxes of $\$ 4$ million, and its depreciation expense was $\$ 8$ million. Crew Cut's gross fixed assets increased by $\$ 10$ million from 2007 to 2008. The firm's current assets increased by $\$ 6$ million and spontaneous current liabilities increased by $\$ 4$ million. What is Crew Cut's operating cash flow, investment in operating capital and free cash flow for 2013, respectively in millions?
A. $\$ 23, \$ 10, \$ 13$
B. $\$ 23, \$ 12, \$ 11$
C. $\$ 27, \$ 10, \$ 17$
D. $\$ 27, \$ 12, \$ 15$

## Crew Cut's operating cash flow was:

$$
\begin{aligned}
\text { OCF } & =\text { EBIT }- \text { Taxes }+ \text { Depreciation } \\
& =(\$ 23 m .-\$ 4 m+\$ 8 m)=\$ 27 m
\end{aligned}
$$

## Investment in operating capital for 2008 was:

IOC $=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital
$=\$ 10 \mathrm{~m} .+(\$ 6 \mathrm{~m} .-\$ 4 \mathrm{~m})=.\$ 12 \mathrm{~m}$.
Accordingly, Crew Cut's free cash flow for 2008 was:
FCF $=$ Operating cash flow - Investment in operating capital $=\$ 27 \mathrm{~m} .-\$ 12 \mathrm{~m} .=\$ 15 \mathrm{~m}$.

In other words, in 2013 Crew Cut had cash flows of $\$ 15$ million available to pay its stockholders and debt holders.

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35. Free Cash Flow You are considering an investment in Cruise, Inc. and want to evaluate the firm's free cash flow. From the income statement, you see that Cruise earned an EBIT of $\$ 202$ million, paid taxes of $\$ 51$ million, and its depreciation expense was $\$ 75$ million. Cruise's gross fixed assets increased by $\$ 70$ million from 2012 to 2013. The firm's current assets decreased by $\$ 10$ million and spontaneous current liabilities increased by $\$ 6$ million. What is Cruise's operating cash flow, investment in operating capital, and free cash flow for 2013, respectively, in millions?
A. $\$ 202, \$ 70, \$ 130$
B. $\$ 226, \$ 70, \$ 156$
C. $\$ 226, \$ 54, \$ 172$
D. $\$ 226, \$ 74, \$ 152$

## Cruise's operating cash flow was:

$$
\begin{aligned}
\mathrm{OCF} & =\text { EBIT }- \text { Taxes }+ \text { Depreciation } \\
& =(\$ 202 \mathrm{~m} .-\$ 51 \mathrm{~m}+\$ 75 \mathrm{~m})=\$ 226 \mathrm{~m}
\end{aligned}
$$

## Investment in operating capital for 2008 was:

$$
\mathrm{IOC}=\Delta \text { Gross fixed assets }+\Delta \text { Net operating working capital }
$$

$$
=\$ 70 \mathrm{~m} .+(-\$ 10 \mathrm{~m} .-\$ 6 \mathrm{~m} .)=\$ 54 \mathrm{~m} .
$$

## Accordingly, Cruise's free cash flow for 2008 was:

$$
\begin{aligned}
\mathrm{FCF} & =\text { Operating cash flow }- \text { Investment in operating capital } \\
& =\$ 226 \mathrm{~m} .-\$ 54 \mathrm{~m} .=\$ 172 \mathrm{~m}
\end{aligned}
$$

In other words, in 2013 Cruise had cash flows of $\$ 172$ million available to pay its stockholders and debt holders.

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36. Free Cash Flow Catering Corp. reported free cash flows for 2013 of $\$ 8$ million and investment in operating capital of $\$ 2$ million. Catering listed $\$ 1$ million in depreciation expense and $\$ 2$ million in taxes on its 2008 income statement. What was Catering's 2013 EBIT?
A. $\$ 7$ million
B. $\$ 10$ million
C. $\$ 11$ million
D. $\$ 13$ million

Catering's free cash flow for 2013 was:
FCF = Operating cash flow - Investment in operating
capital \$8m = Operating cash flow - \$2m
So, operating cash flow $=\$ 8 \mathrm{~m}+\$ 2 \mathrm{~m}=\$ 10 \mathrm{~m}$

Catering's operating cash flow was:
OCF = EBIT - Taxes + Depreciation
$\$ 10 m=($ EBIT $-\$ 2 m+\$ 1 m)$
So, EBIT $=\$ 10 \mathrm{~m}+\$ 2 \mathrm{~m}+\$ 1 \mathrm{~m}=\$ 11 \mathrm{~m}$

AACSB: Analytic

Accessibility: Keyboard Navigation Blooms: Apply

Difficulty: 1 Easy

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37. Statement of Retained Earnings TriCycle, Corp. began the year 2013 with $\$ 25$ million in retained earnings. The firm earned net income of $\$ 7$ million in 2008 and paid $\$ 1$ million to its preferred stockholders and $\$ 3$ million to its common stockholders. What is the year-end 2013 balance in retained earnings for TriCycle?
A. $\$ 25$ million
B. $\$ 28$ million
C. $\$ 32$ million
D. $\$ 36$ million

The statement of retained earnings for 2013 is as follows:

Balance of Retained Earnings, December 31, 2012
Plus: Net Income for 2013
\$25m 7 m
Less: Cash Dividends Paid
Preferred Stock $\$ 1 \mathrm{~m}$
Common Stock 3 m
Total Cash Dividends Paid $\underline{4 \mathrm{~m}}$
Balance of Retained Earnings, December 31, $2013 \quad \$ 28 \mathrm{~m}$

AACSB: Analytic
Blooms: Apply
Difficulty: 1 Easy

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38. Statement of Retained Earnings Night Scapes, Corp. began the year 2013 with $\$ 10$ million in retained earnings. The firm suffered a net loss of $\$ 2$ million in 2013 and yet paid $\$ 2$ million to its preferred stockholders and $\$ 1$ million to its common stockholders. What is the year-end 2013 balance in retained earnings for Night Scapes?
A. $\$ 5$ million
B. $\$ 8$ million
C. $\$ 9$ million
D. $\$ 15$ million

The statement of retained earnings for 2013 is as follows:

Balance of Retained Earnings, December 31, 2012
$\$ 10 \mathrm{~m}$
Less: Net Loss for 2013
2m
Less: Cash Dividends Paid
Preferred Stock $\$ 2 \mathrm{~m}$
Common Stock Im
Total Cash Dividends Paid
Balance of Retained Earnings, December 31, 2013

3m $\$ 5 \mathrm{~m}$

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39. Statement of Retained Earnings Use the following information to find dividends paid to common stockholders during 2013.

| Balance of Retained Earnings, December 31, 2012 <br> Plus: Net Income for 2013 <br> Less: Cash Dividends Paid <br> Preferred Stock <br> Common Stock <br> Total Cash Dividends Paid |
| :--- |
| $\$ 52 \mathrm{~m}$ <br> Balance of Retained Earnings, December 31, 2013 |
| 1 m |

A. $\$ 3$ million
B. $\$ 4$ million
C. $\$ 10$ million
D. $\$ 17$ million

Total Cash Dividends Paid $=\$ 56 \mathrm{~m}-\$ 21 \mathrm{~m}-\$ 52 \mathrm{~m}=-\$ 17 \mathrm{~m}$. Thus, common stock
dividends paid $=\$ 17 \mathrm{~m}-\$ 7 \mathrm{~m}=\$ 10 \mathrm{~m}$.

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40. Balance Sheet Harvey's Hamburger Stand has total assets of $\$ 3$ million of which $\$ 1$ million are current assets. Cash makes up 20 percent of the current assets and accounts receivable makes up another 5 percent of current assets. Harvey's gross plant and equipment has a book value of $\$ 1.5$ million and other long-term assets have a book value of $\$ 1$ million. Using this information, what is the balance of inventory and the balance of depreciation on Harvey's Hamburger Stand's balance sheet?
A. $\$ 250,000, \$ 500,000$
B. $\$ 250,000, \$ 1$ million
C. $\$ 750,000, \$ 500,000$
D. $\$ 750,000, \$ 1$ million

| Current assets: |  |  |
| :--- | ---: | ---: |
| Cash and marketable |  |  |
| Securities $(.2 \times \$ 1)$ |  | $\$ 0.20$ |
| Accounts receivable $(.05 \times \$ 1)$ | 0.05 |  |
| Inventory | step 1. | $\underline{.75}$ |
| Total |  | $\$ 1.0$ |

(\$1-\$0.2-\$0.05)

Fixed assets:
Gross plant and
equipment
\$ 1.5
Less: Depreciation
step 4.
0.5 (\$1.5-\$1.0)

Net plant and equipment
step 3. $\quad \$ 1.0 \quad(\$ 2.0-\$ 1.0)$
Other long-term assets
Total
step 2. $\quad \frac{1.0}{\$ 2.0}(\$ 3.0-\$ 1.0)$
Total assets
$\$ 3.0$

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41. Balance Sheet School Books, Inc. has total assets of $\$ 18$ million of which $\$ 6$ million are current assets. Cash makes up 10 percent of the current assets and accounts receivable makes up another 40 percent of current assets. School Books' gross plant and equipment has an original cost of $\$ 13$ million and other long-term assets have a cost value of $\$ 2$ million. Using this information, what are the balance of inventory and the balance of depreciation on School Books' balance sheet?
A. $\$ 3$ million, $\$ 2$ million
B. $\$ 3$ million, $\$ 3$ million
C. $\$ 2.4$ million, $\$ 2$ million
D. $\$ 2.4$ million, $\$ 3$ million

## Current assets:

Cash and marketable
Securities (.10 x \$6) \$ 0.6
$\begin{array}{lrr}\text { Accounts receivable }(.40 \times \$ 6) & 2.4 \\ \text { Inventory } & \text { step } 1 . & \frac{3.0}{8}\end{array}$
(\$6-\$0.6-\$3.0)

Fixed assets:
Gross plant and equipment
Less: Depreciation
step 4.
$\$ 13.0$
Net plant and equipment step 3.
$\$ 10.0 \quad(\$ 12-\$ 2)$
Other long-term assets
Total step 2. $\quad \overline{2.0}(\$ 18-\$ 6)$

Total assets
$\$ 18.0$

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42. Balance Sheet Ted's Taco Shop has total assets of $\$ 5$ million. Forty percent of these assets are financed with debt of which $\$ 400,000$ is current liabilities. The firm has no preferred stock but the balance in common stock and paid-in surplus is $\$ 1$ million. Using this information what is the balance for long-term debt and retained earnings on Ted's Taco Shop's balance sheet?
A. $\$ 400,000, \$ 1$ million
B. $\$ 1.6$ million, $\$ 2$ million
C. $\$ 1.6$ million, $\$ 3$ million
D. $\$ 2$ million, $\$ 3$ million

Total current liabilities
$\$ .4$
Long-term debt: $\quad$ step 3. $\$ 1.6(=\$ 2-\$ .4)$
Total debt: $\quad$ step 2. $\$ 2(=.4 \times \$ 5)$
Stockholders' equity:
Preferred stock $\$ 0$
Common stock and paid-in surplus

1
( 2 million shares)
Retained earnings step 5. $2 \quad(=\$ 3-\$ 1)$
Total
step 4 \$3 $(=\$ 5-\$ 2)$
Total liabilities and equity step 1. $\underline{\underline{\$ 5}}$ (= Total Assets)

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43. Balance Sheet Hair Etc. has total assets of $\$ 15$ million. Twenty percent of these assets are financed with debt of which $\$ 1$ million is current liabilities. The firm has no preferred stock but the balance in common stock and paid-in surplus is $\$ 8$ million. Using this information what is the balance for long-term debt and retained earnings on Hair Etc.'s balance sheet?
A. $\$ 1$ million, $\$ 8$ million
B. $\$ 2$ million, $\$ 4$ million
C. $\$ 2$ million, $\$ 8$ million
D. $\$ 3$ million, $\$ 4$ million

Total current liabilities

| Long-term debt: | step 3. | $\$ 2$ | $(=\$ 3-\$ 1)$ |
| :--- | :--- | :--- | :--- |
| Total debt: | step 2. | $\$ 3$ | $(=.2 \times \$ 15 \mathrm{~m})$ |

Stockholders' equity:
Preferred stock
Common stock and paid-in surplus ( 2 million shares)
Retained carnings step 5.
$4 \quad(=\$ 12-\$ 8)$
Total step 4
\$12 (= \$15-\$3)
Total liabilities and equity step 1. \$15 (= Total Assets)

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44. Market Value versus Book Value Acme Bricks balance sheet lists net fixed assets as $\$ 40$ million. The fixed assets could currently be sold for $\$ 50$ million. Acme's current balance sheet shows current liabilities of $\$ 15$ million and net working capital of $\$ 12$ million. If all the current accounts were liquidated today, the company would receive $\$ 77$ million cash after paying $\$ 15$ million in liabilities. What is the book value of Acme's assets today? What is the market value of these assets?
A. $\$ 12$ million, $\$ 77$ million $B$.
\$27 million, \$92 million C.
\$40 million, $\$ 50$ million D.
\$67 million, \$142 million

|  | Book <br> value | Market <br> value |  |
| :--- | :---: | :---: | ---: |
| Assets <br> Current assets step 1. | $\$ 27 \mathrm{~m}$. | step 3. | $\$ 92 \mathrm{~m}$. |
| Fixed assets <br> Total$\quad$ step 2. | $\underline{40 \mathrm{~m} .}$ |  | $\frac{50 \mathrm{~m} .}{\$ 67 \mathrm{~m} .}$ |

Step 1: Net working capital (book value) = Current assets (book value) - Current liabilities (book value)
$=\$ 12 \mathrm{~m}=$ Current assets (book value) $-\$ 15 \mathrm{~m}=>$ Current assets (book value) $=\$ 12 \mathrm{~m}+\$ 15 \mathrm{~m}$
$=\$ 27 \mathrm{~m}$
Step 2: Total assets (book value) $=\$ 27 \mathrm{~m}+\$ 40 \mathrm{~m}=\$ 67 \mathrm{~m}$
Step 3: Net working capital (market value) = Current assets (market value) - Current liabilities (market value)
$=\$ 77 \mathrm{~m}=$ Current assets (market value) $-\$ 15 \mathrm{~m}=>$ Current assets (market value) $=\$ 77 \mathrm{~m}$
$+\$ 15 m=\$ 92 m$
Step 4: Total assets (market value) $=\$ 92 \mathrm{~m}+\$ 50 \mathrm{~m}=\$ 142 \mathrm{~m}$

Learning Objective: 02-02 Differentiate between book (or accounting) value and market value.

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45. Market Value versus Book Value Glo's Glasses balance sheet lists net fixed assets as $\$ 20$
million. The fixed assets could currently be sold for $\$ 25$ million. Glo's current balance sheet shows current liabilities of $\$ 7$ million and net working capital of $\$ 3$ million. If all the current accounts were liquidated today, the company would receive $\$ 9$ million cash after paying $\$ 7$ million in liabilities. What is the book value of Glo's assets today? What is the market value of these assets?
A. $\$ 10$ million, $\$ 16$ million
B. $\$ 10$ million, $\$ 35$ million
C. $\$ 30$ million, $\$ 35$ million
D. $\$ 30$ million, $\$ 41$ million

|  | Book value |  | Market value |
| :---: | :---: | :---: | :---: |
| Assets |  |  |  |
| Current assets step 1. | \$10m. | step 3. | \$16m. |
| Fixed assets | 20 m . |  | 25 m . |
| Total step 2. | \$30m. |  | \$41m. |

Step 1: Net working capital (book value) = Current assets (book value) - Current liabilities (book value)
$=\$ 3 \mathrm{~m}=$ Current assets (book value) $-\$ 7 \mathrm{~m}=>$ Current assets (book value) $=\$ 3 \mathrm{~m}+\$ 7 \mathrm{~m}$
$=\$ 10 \mathrm{~m}$
Step 2: Total assets (book value) $=\$ 10 \mathrm{~m}+\$ 20 \mathrm{~m}=\$ 30 \mathrm{~m}$
Step 3: Net working capital (market value) = Current assets (market value) - Current liabilities (market value)
$=\$ 9 m=$ Current assets (market value) $-\$ 7 m=>$ Current assets (market value) $=\$ 9 m+\$ 7 m$
$=\$ 16 \mathrm{~m}$
Step 4: Total assets (market value) $=\$ 16 m+\$ 25 m=\$ 41 m$

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46. Market Value versus Book Value Rupert's Rims balance sheet lists net fixed assets as $\$ 15$ million. The fixed assets could currently be sold for $\$ 17$ million. Rupert's current balance sheet shows current liabilities of $\$ 5$ million and net working capital of $\$ 3$ million. If all the current accounts were liquidated today, the company would receive $\$ 6$ million cash after paying $\$ 5$ million in liabilities. What is the book value of Rupert's assets today? What is the market value of these assets?
A. $\$ 8$ million, $\$ 23$ million
B. $\$ 23$ million, $\$ 25$ million
C. $\$ 23$ million, $\$ 28$ million
D. $\$ 31$ million, $\$ 28$ million

|  | Book value |  | Market value |
| :---: | :---: | :---: | :---: |
| Assets |  |  |  |
| Current assets step 1. | \$8m. | step 3. | \$11m. |
| Fixed assets | 15 m . |  | 17 m . |
| Total step 2. | \$23m. |  | \$28m |

Step 1: Net working capital (book value) = Current assets (book value) - Current liabilities (book value)
$=\$ 3 \mathrm{~m}=$ Current assets (book value) $-\$ 5 \mathrm{~m}=>$ Current assets (book value) $=\$ 3 \mathrm{~m}+\$ 5 \mathrm{~m}$
$=\$ 8 \mathrm{~m}$
Step 2: Total assets (book value) $=\$ 8 \mathrm{~m}+\$ 15 \mathrm{~m}=\$ 23 \mathrm{~m}$
Step 3: Net working capital (market value) = Current assets (market value) - Current liabilities (market value)
$=\$ 6 m=$ Current assets (market value) $-\$ 5 m=>$ Current assets (market value) $=\$ 6 m+\$ 5 m$
$=\$ 11 \mathrm{~m}$
Step 4: Total assets (market value) $=\$ 11 m+\$ 17 m=\$ 28 m$

Learning Objective: 02-02 Differentiate between book (or accounting) value and market value.

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47. Debt versus Equity Financing You are considering a stock investment in one of two firms (AllDebt, Inc. and AllEquity, Inc.), both of which operate in the same industry and have identical operating income of $\$ 600,000$. AllDebt, Inc. finances its $\$ 1.2$ million in assets with $\$ 1$ million in debt (on which it pays 10 percent interest annually) and $\$ 0.2$ million in equity. AllEquity, Inc. finances its $\$ 1.2$ million in assets with no debt and $\$ 1.2$ million in equity. Both firms pay a tax rate of 30 percent on their taxable income. What are the asset funders' (the debt holders and stockholders) resulting return on assets for the two firms?
A. $29.17 \%$, and $35 \%$, respectively
B. $37.5 \%$, and $35 \%$, respectively
C. $37.5 \%$, and $37.5 \%$, respectively
D. $50 \%$, and $50 \%$, respectively


Return on assets funders' investment $\$ 0.45 \mathrm{~m} / \$ 1.2 \mathrm{~m}=$
$37.50 \% \$ 0.42 \mathrm{~m} / \$ 1.2 \mathrm{~m}=35.00 \%$

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48. Debt versus Equity Financing You are considering a stock investment in one of two firms (AllDebt, Inc. and AllEquity, Inc.), both of which operate in the same industry and have identical operating income of $\$ 3$ million. AllDebt, Inc. finances its $\$ 6$ million in assets with $\$ 5$ million in debt (on which it pays 5 percent interest annually) and $\$ 1$ million in equity. AllEquity, Inc. finances its $\$ 6$ million in assets with no debt and $\$ 6$ million in equity. Both firms pay a tax rate of 40 percent on their taxable income. What are the asset funders' (the debt holders and stockholders) resulting return on assets for the two firms?
A. $27.5 \%$, and $30 \%$, respectively
B. $31.67 \%$, and $30 \%$, respectively
C. $33 \%$, and $30 \%$, respectively
D. $50 \%$, and $50 \%$, respectively

|  | Allidebt | AllEquity |
| :---: | :---: | :---: |
| Operating income | \$ 3m. | \$ 3m. |
| Less: Interest (\$5m. $\times .05$ ) | 25m. | 0m. |
| Taxable income | 2.75 m . | 3 m . |
| Less: Taxes (40\%) | 1.1 m . | 1.2 m . |
| Net income | \$1.65m. | \$1.8m. |
| Income available for asset funders | \$ 1.9m. | \$1.8m. |

Return on assets funders' investment $\$ 1.9 \mathrm{~m} / \$ 6 \mathrm{~m}=$
$31.67 \% \$ 1.8 \mathrm{~m} / \$ 6 \mathrm{~m}=30.00 \%$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

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49. Debt versus Equity Financing You are considering a stock investment in one of two firms (AllDebt, Inc. and AllEquity, Inc.), both of which operate in the same industry and have identical operating income of $\$ 400,000$. AllDebt, Inc. finances its $\$ 800,000$ in assets with $\$ 600,000$ in debt (on which it pays 5 percent interest annually) and $\$ 200,000$ in equity. AllEquity, Inc. finances its $\$ 800,000$ in assets with no debt and $\$ 800,000$ in equity. Both firms pay a tax rate of 30 percent on their taxable income. What are the asset funders' (the debt holders and stockholders) resulting return on assets for the two firms?
A. $32.375 \%$, and $35.00 \%$, respectively
B. $36.125 \%$, and $35.00 \%$, respectively
C. $46.25 \%$, and $50 \%$, respectively
D. $50 \%$, and $50 \%$, respectively


Return on assets funders' investment $\$ 0.289 \mathrm{~m} / \$ 0.8 \mathrm{~m}=$
$36.125 \% \$ 0.28 \mathrm{~m} / \$ 0.8 \mathrm{~m}=35.00 \%$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium

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50. Income Statement You have been given the following information for Fina's Furniture Corp.: Net sales $=\$ 25,500,000$;

Cost of goods sold $=\$ 10,250,000 ;$ Addition
to retained earnings $=\$ 305,000$;
Dividends paid to preferred and common stockholders =
$\$ 500,000 ;$ Interest expense $=\$ 2,000,000$.
The firm's tax rate is 30 percent. What is the depreciation expense for Fina's Furniture Corp.?
A. $\$ 12,100,000$
B. $\$ 12,400,000$
C. $\$ 14,100,000$
D. $\$ 14,400,000$

| Net sales (all credit) |  | $\$ 25,500,000$ <br> Less: Cost of goods sold <br> Gross profits |
| :--- | :---: | ---: |
|  | step 4. | $\underline{10,250,000}$ |
| Less: Depreciation | step 5. | $\underline{\$ 12,250,000}$ |
| Earnings before interest and taxes (EBIT) | step 3. | $\$ 3,150,000$ |
| Less: Interest <br> Earnings before taxes (EBT) <br> Less: Taxes <br> Net income | step 2. | $\underline{\$ 1,150,000}$ |

Less: Common and preferred stock dividends
Addition to retained earnings
\$ 500.000
\$ 305,000

Step 1: Net income = Common and preferred stock dividends + Addition to retained earnings
$=\$ 500,000+\$ 305,000=\$ 805,000$
Step 2: EBT ( 1 - tax rate) = Net income => EBT = Net income/(1-tax rate) $=\$ 805,000 /(1-$
0.3) $=\$ 1,150,000$

Step 3: EBIT - Interest = EBT => EBIT = EBT + Interest = \$1,150,000 + \$2,000,000 = \$3,150,000
Step 4: Gross profits $=$ Net sales - Cost of goods sold $=\$ 25,500,000-10,250,000=\$ 15,250,000$

Step 5: Gross profits - Depreciation $=$ EBIT $=>$ Depreciation $=$ Gross profits - EBIT
$=\$ 15,250,000-\$ 3,150,000=\$ 12,100,000$

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51. Income Statement You have been given the following information for Romeo's Rockers

Corp.: Net sales $=\$ 5,200,000$;
Cost of goods sold $=\$ 2,100,000$; Addition
to retained earnings $=\$ 1,000,000$;
Dividends paid to preferred and common stockholders =
$\$ 400,000 ;$ Interest expense $=\$ 200,000$.
The firm's tax rate is 30 percent. What is the depreciation expense for Romeo's Rockers Corp.?
A. $\$ 900,000$
B. $\$ 1,100,000$
C. $\$ 1,500,000$
D. $\$ 1,600,000$

Net sales (all credit)
Less: Cost of goods sold
Gross profits
Less: Depreciation
Earnings before interest and taxes (EBIT)
Less: Interest
Earnings before taxes (EBT)
Less: Taxes
Net income

|  | $\$ 5,200,000$ |
| :---: | :---: |
|  | 2,100,000 |
| step 4. | \$3,100,000 |
| step 5. | \$ 900,000 |
| step 3. | $\begin{array}{r} \$ 2,200,000 \\ 200,000 \end{array}$ |
| step 2. | \$2,000,000 |
| step 1. | \$1,400,000 |
| s | \$ 400,000 |
|  | \$1,000,000 |

Less: Common and preferred stock dividends Addition to retained earnings

Step 1: Net income = Common and preferred stock dividends + Addition to retained earnings
$=\$ 400,000+\$ 1,000,000=\$ 1,400,000$
Step 2: EBT ( 1 - tax rate) $=$ Net income $=>$ EBT $=$ Net income/( $1-$ tax rate $)=\$ 1,400,000 /(1-$
$0.3)=\$ 2,000,000$
Step 3: EBIT - Interest $=$ EBT $=>$ EBIT $=$ EBT + Interest $=\$ 2,000,000+\$ 200,000=\$ 2,200,000$

Step 4: Gross profits $=$ Net sales - Cost of goods sold $=\$ 5,200,000-2,100,000=\$ 3,100,000$
Step 5: Gross profits - Depreciation $=$ EBIT $=>$ Depreciation $=$ Gross profits - EBIT $=$ $\$ 3,100,000-\$ 2,200,000=\$ 900,000$
52. Income Statement You have been given the following information for Nicole's Neckties

Corp.: Net sales $=\$ 2,500,000$;
Cost of goods sold $=\$ 1,300,000$; Addition
to retained earnings $=\$ 30,000$;
Dividends paid to preferred and common stockholders =
$\$ 300,000 ;$ Interest expense $=\$ 50,000$.
The firm's tax rate is 40 percent. What is the depreciation expense for Nicole's Neckties Corp.?
A. $\$ 550,000$
B. $\$ 600,000$
C. $\$ 650,000$
D. $\$ 820,000$

Net sales (all credit)
Less: Cost of goods sold Gross profits

Less: Depreciation
Earnings before interest and taxes (EBIT)
Less: Interest
Earnings before taxes (EBT)
Less: Taxes
Net income

|  | \$2,500,000 |
| :---: | :---: |
|  | 1,300,000 |
| step 4. | \$ 1,200,000 |
| step 5. | \$ 600,000 |
| step 3. | \$ 600,000 |
|  | 50,000 |
| step 2. | \$ 550,000 |
| step 1. | \$ 330,000 |

Less: Common and preferred stock dividends Addition to retained earnings
\$ 300,000
\$ 30,000

Step 1: Net income = Common and preferred stock dividends + Addition to retained earnings $=\$ 300,000+\$ 30,000=\$ 330,000$

Step 2: EBT ( $1-$ tax rate $)=$ Net income $=>$ EBT $=$ Net income/(1-tax rate) $=\$ 330,000 /(1-$
$0.4)=\$ 550,000$
Step 3: EBIT - Interest $=$ EBT $=>$ EBIT $=$ EBT + Interest $=\$ 550,000+\$ 50,000=\$ 600,000$

Step 4: Gross profits $=$ Net sales - Cost of goods sold $=\$ 2,500,000-1,300,000=\$ 1,200,000$
Step 5: Gross profits - Depreciation $=$ EBIT $=>$ Depreciation $=$ Gross profits - EBIT $=$
$\$ 1,200,000-\$ 600,000=\$ 600,000$
53. Income Statement You have been given the following information for Sherry's Sandwich Corp.: Net sales = \$300,000;

Gross profit $=\$ 100,000$;
Addition to retained earnings $=\$ 30,000$;
Dividends paid to preferred and common stockholders =
$\$ 8,500$; Depreciation expense $=\$ 25,000$.
The firm's tax rate is 30 percent. What are the cost of goods sold and the interest expense for Sherry's Sandwich Corp.?
A. $\$ 20,000$, and $\$ 200,000$, respectively
B. $\$ 100,000$, and $\$ 20,000$, respectively
C. $\$ 200,000$, and $\$ 20,000$, respectively
D. $\$ 200,000$, and $\$ 36,500$, respectively

| Net sales (all credit) |  | \$300,000 |
| :---: | :---: | :---: |
| Less: Cost of goods sold | step 3. | 200,000 |
| Gross profits |  | \$100,000 |
| Less: Depreciation |  | \$25,000 |
| Earnings before interest and taxes (EBIT) | step 4. | \$ 75,000 |
| Less: Interest | step 5. | 20,000 |
| Earnings before taxes (EBT) | step 2. | \$ 55,000 |
| Less: Taxes |  |  |
| Net income | step 1. | \$38,500 |
| Less: Common and preferred stock dividends |  | \$8,500 |
| Addition to retained earnings |  | \$30,000 |

Step 1: Net income = Common and preferred stock dividends + Addition to retained earnings
$=\$ 8,500+\$ 30,000=\$ 38,500$
Step 2: EBT ( 1 - tax rate) = Net income => EBT = Net income/(1-tax rate) $=\$ 38,500 /(1-0.3)$
$=\$ 55,000$
Step 3: Gross profits = Net sales - Cost of goods sold => Net Sales - Gross Profit = Cost
of Goods Sold \$300,000-100,000 = \$200,000

Step 4: Gross profits - Depreciation $=$ EBIT $=\$ 100,000-\$ 25,000=\$ 75,000$

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Step 5: EBIT - Interest = EBT => Interest = EBIT - EBT = \$75,000 - \$55,000 = \$20,000

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement
54. Income Statement You have been given the following information for Kaye's Krumpet

Corp.: Net sales $=\$ 150,000$;
Gross profit $=\$ 100,000$;
Addition to retained earnings $=\$ 20,000$;
Dividends paid to preferred and common stockholders =
$\$ 8,000$; Depreciation expense $=\$ 50,000$.
The firm's tax rate is 30 percent. What are the cost of goods sold and the interest expense for Kaye's Krumpet Corp.?
A. $\$ 10,000$, and $\$ 50,000$, respectively
B. $\$ 50,000$, and $\$ 10,000$, respectively
C. $\$ 50,000$, and $\$ 22,000$, respectively
D. $\$ 62,000$, and $\$ 10,000$, respectively

Net sales (all credit)
Less: Cost of goods sold Gross profits

Less: Depreciation
Earnings before interest and taxes (EBIT)
Less: Interest
Earnings before taxes (EBT)
Less: Taxes
Net income
Less: Common and preferred stock dividends Addition to retained earnings

step 3. | $\$ 150,000$ |
| ---: |
| 50,000 |
| $\$ 100,000$ |

step 4 step 5. step 2 .
step 1. $\quad \$ 28,000$

Step 1: Net income = Common and preferred stock dividends + Addition to retained earnings
$=\$ 8,000+\$ 20,000=\$ 28,000$
Step 2: EBT ( $1-$ tax rate $)=$ Net income $=>$ EBT $=$ Net income/( $1-$ tax rate $)=\$ 28,000 /(1-0.3)$ $=\$ 40,000$

Step 3: Gross profits $=$ Net sales - Cost of goods sold $=>$ Net Sales - Gross Profit $=$ Cost
of Goods Sold \$150,000-50,000 = \$50,000

Step 4: Gross profits - Depreciation $=$ EBIT $=\$ 100,000-\$ 50,000=\$ 50,000$

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Step 5: EBIT - Interest $=$ EBT $=>$ Interest $=$ EBIT - EBT $=\$ 50,000-\$ 40,000=\$ 10,000$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement
55. Income Statement You have been given the following information for Ross's Rocket Corp.: Net sales $=\$ 1,000,000$;

Gross profit $=\$ 400,000$;
Addition to retained earnings $=\$ 60,000$;
Dividends paid to preferred and common stockholders =
$\$ 90,000 ;$ Depreciation expense $=\$ 50,000$.
The firm's tax rate is 40 percent. What are the cost of goods sold and the interest expense for Ross's Rocket Corp.?
A. $\$ 100,000$, and $\$ 600,000$, respectively
B. $\$ 600,000$, and $\$ 100,000$, respectively
C. $\$ 600,000$, and $\$ 200,000$, respectively
D. $\$ 700,000$, and $\$ 100,000$, respectively

| Net sales (all credit) |  | \$1,000,000 |
| :---: | :---: | :---: |
| Less: Cost of goods sold | step 3 . | 600,000 |
| Gross profits |  | \$ 400,000 |
| Less: Depreciation |  | \$ 50.000 |
| Earnings before interest and taxes (EBIT) | step 4. | \$ 350,000 |
| Less: Interest | step 5 | 100,000 |
| Earnings before taxes (EBT) | step 2 . | \$ 250,000 |
| Less: Taxes |  |  |
| Net income | step 1. | \$ 150,000 |
| Less: Common and preferred stock dividends |  | \$ 90,000 |
| Addition to retained earnings |  | \$ 60,000 |

Step 1: Net income = Common and preferred stock dividends + Addition to retained earnings
$=\$ 90,000+\$ 60,000=\$ 150,000$
Step 2: EBT ( 1 - tax rate) $=$ Net income => EBT = Net income/( 1 - tax rate) $=\$ 150,000 /(1-0.4)$
$=\$ 250,000$
Step 3: Gross profits $=$ Net sales - Cost of goods sold $=>$ Net Sales - Gross Profit $=$ Cost
of Goods Sold \$1,000,000-400,000 = \$600,000

Step 4: Gross profits - Depreciation $=$ EBIT $=\$ 400,000-\$ 50,000=\$ 350,000$

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Step 5: EBIT - Interest $=$ EBT $=>$ Interest $=$ EBIT - EBT $=\$ 350,000-\$ 250,000=\$ 100,000$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement
56. Corporate Taxes The Carolina Corporation had a 2013 taxable income of $\$ 3,000,000$ from operations after all operating costs but before
(1) interest charges of $\$ 500,000$,
(2) dividends received of $\$ 75,000$,
(3) dividends paid of $\$ 1,000,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is Carolina's income tax liability?
What are Carolina's average and marginal tax rates on taxable income from operations?
A. $\$ 857,650,28.59 \%, 34 \%$, respectively
B. $\$ 875,500,29.18 \%, 34 \%$, respectively
C. $\$ 875,500,34.00 \%, 34 \%$, respectively
D. $\$ 1,020,000,34.00 \%, 34 \%$, respectively

The first 70 percent of the dividends received by Carolina Corp. is not taxable. Thus, only 30 percent of the dividends received are taxed, so:

Taxable income $=\$ 3,000,000-\$ 500,000+(0.3) \$ 75,000=\$ 2,522,500$
Now Carolina's Corp.'s tax liability will be:
Tax liability $=\$ 113,900+0.34(\$ 2,522,500-\$ 335,000)=\$ 857,650$
Carolina Corp.'s resulting average tax rate is now:
Average tax rate $=\$ 857650 / \$ 3,000,000=28.59 \%$
Finally, if Carolina Corp. earned $\$ 1$ more of taxable income, it would still pay 34 cents
(based upon its marginal tax rate of 34 percent) more in taxes.

Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes

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57. Corporate Taxes The Ohio Corporation had a 2013 taxable income of $\$ 50,000,000$ from operations after all operating costs but before
(1) interest charges of $\$ 500,000$,
(2) dividends received of $\$ 45,000$,
(3) dividends paid of $\$ 10,000,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is Ohio's income tax liability?
What are Ohio's average and marginal tax rates on taxable income from operations?
A. $\$ 6,416,667,12.83 \%, 35 \%$, respectively
B. $\$ 13,829,725,27.66 \%, 35 \%$, respectively
C. $\$ 17,329,725,34.66 \%, 35 \%$, respectively
D. $\$ 17,340,750,34.68 \%, 35 \%$, respectively

The first 70 percent of the dividends received by Ohio Corp. is not taxable. Thus, only 30 percent of the dividends received are taxed, so:

Taxable income $=\$ 50,000,000-\$ 500,000+(0.3) \$ 45,000=\$ 49,513,500$
Now Ohio's Corp.'s tax liability will be:
Tax liability $=\$ 6,416,667+0.35(\$ 49,513,500-\$ 18,333,333)=\$ 17,329,725$
Ohio Corp.'s resulting average tax rate is now:
Average tax rate $=\$ 17,329,725.45 / \$ 50,000,000=34.66 \%$
Finally, if Ohio Corp. earned $\$ 1$ more of taxable income, it would still pay 35 cents (based upon its marginal tax rate of 35 percent) more in taxes.

Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes

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58. Corporate Taxes The Sasnak Corporation had a 2013 taxable income of $\$ 4,450,000$ from operations after all operating costs but before
(1) interest charges of $\$ 750,000$,
(2) dividends received of $\$ 900,000$,
(3) dividends paid of $\$ 500,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is Sasnak's income tax liability?
What are Sasnak's average and marginal tax rates on taxable income from operations?
A. $\$ 1,349,800,30.33 \%, 34 \%$, respectively
B. $\$ 1,349,800,34.00 \%, 34 \%$, respectively
C. $\$ 1,564,000,34.00 \%, 34 \%$, respectively
D. $\$ 1,564,000,35.15 \%, 34 \%$, respectively

The first 70 percent of the dividends received by Sasnak Corp. is not taxable. Thus, only
30 percent of the dividends received are taxed, so:
Taxable income $=\$ 4,450,000-\$ 750,000+(0.3) \$ 900,000=\$ 3,970,000$
Now Sasnak's Corp.'s tax liability will be:
Tax liability $=\$ 113,900+0.34(\$ 3,970,000-\$ 335,000)=\$ 1,349,800$
Sasnak Corp.'s resulting average tax rate is now:
Average tax rate $=\$ 1,349,800 / \$ 4,450,000=30.33 \%$
Finally, if Sasnak Corp. earned $\$ 1$ more of taxable income, it would still pay 34 cents (based upon its marginal tax rate of 34 percent) more in taxes.

Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes

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59. Corporate Taxes The AOK Corporation had a 2013 taxable income of $\$ 2,200,000$ from operations after all operating costs but before
(1) interest charges of $\$ 90,000$,
(2) dividends received of $\$ 750,000$,
(3) dividends paid of $\$ 80,000$, and
(4) income taxes.

Using the tax schedule in Table 2.3, what is AOK's income tax liability?
What are AOK's average and marginal tax rates on taxable income from operations?
A. $\$ 793,900,34 \%, 34 \%$, respectively
B. $\$ 793,900,36.0864 \%, 34 \%$, respectively
C. $\$ 972,400,34 \%, 34 \%$, respectively
D. $\$ 972,400,44.2 \%, 34 \%$, respectively

The first 70 percent of the dividends received by AOK Corp. is not taxable. Thus, only
30 percent of the dividends received are taxed, so:
Taxable income $=\$ 2,200,000-\$ 90,000+(0.3) \$ 750,000=\$ 2,335,000$
Now AOK's Corp.'s tax liability will be:
Tax liability $=\$ 113,900+0.34(\$ 2,335,000-\$ 335,000)=\$ 793,900$
AOK Corp.'s resulting average tax rate is now:
Average tax rate $=\$ 793,900 / \$ 2,200,000=36.0864 \%$
Finally, if AOK Corp. earned $\$ 1$ more of taxable income, it would still pay 34 cents (based upon its marginal tax rate of 34 percent) more in taxes.

Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes

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60. Corporate Taxes Suppose that in addition to the $\$ 5.5$ million of taxable income from operations, Emily's Flowers, Inc. received $\$ 500,000$ of interest on state-issued bonds and $\$ 300,000$ of dividends on common stock it owns in Amy's Iris Bulbs, Inc.

Using the tax schedule in Table 2.3 what is Emily's Flowers' income tax liability? What are Emily's Flowers' average and marginal tax rates on total taxable income?
A. $\$ 1,900,600,34 \%, 34 \%$, respectively
B. $\$ 1,972,000,34 \%, 34 \%$, respectively
C. $\$ 2,070,600,34 \%, 34 \%$, respectively
D. $\$ 2,142,000,34 \%, 34 \%$, respectively

Interest on the state-issued bonds is not taxable and should not be included in taxable income. Further, the first 70 percent of the dividends received from Amy's is not taxable. Thus, only 30 percent of the dividends received are taxed, so:

Taxable income $=\$ 5,500,000+(0.3) \$ 300,000=\$ 5,590,000$
Now Emily's tax liability will be:
Tax liability $=\$ 113,900+0.34(\$ 5,590,000-\$ 335,000)=\$ 1,900,600$
Emily's resulting average tax rate is now:
Average tax rate $=\$ 1,900,600 / \$ 5,590,000=34 \%$
Finally, if Emily earned $\$ 1$ more of taxable income, it would still pay 34 cents (based upon its marginal tax rate of 34 percent) more in taxes.

AACSB: Analytic

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61. Corporate Taxes Suppose that in addition to the $\$ 300,000$ of taxable income from operations, Liam's Burgers, Inc. received $\$ 25,000$ of interest on state-issued bonds and $\$ 50,000$ of dividends on common stock it owns in Sodas, Inc.

Using the tax schedule in Table 2.3 what is Liam's income tax liability? What are Liam's average and marginal tax rates on total taxable income?
A. $\$ 106,100,33.68 \%, 39 \%$, respectively
B. $\$ 122,850,39.00 \%, 39 \%$, respectively
C. $\$ 129,500,34.53 \%, 39 \%$, respectively
D. $\$ 139,250,37.13 \%, 39 \%$, respectively

Interest on the state-issued bonds is not taxable and should not be included in taxable income. Further, the first 70 percent of the dividends received from Sodas is not taxable. Thus, only 30 percent of the dividends received are taxed, so:

Taxable income $=\$ 300,000+(0.3) \$ 50,000=\$ 315,000$
Now Liam's tax liability will be:
Tax liability $=\$ 22,250+0.39(\$ 315,000-\$ 100,000)=\$ 106,100$
Liam's resulting average tax rate is now:
Average tax rate $=\$ 106,100 / \$ 315,000=33.68 \%$
Finally, if Liam earned $\$ 1$ more of taxable income, it would still pay 39 cents (based upon its marginal tax rate of 39 percent) more in taxes.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium

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62. Statement of Cash Flows Fina's Faucets, Inc. has net cash flows from operating activities for the last year of $\$ 17$ million. The income statement shows that net income is $\$ 15$ million and depreciation expense is $\$ 6$ million. During the year, the change in inventory on the balance sheet was an increase of $\$ 4$ million, change in accrued wages and taxes was an increase of $\$ 1$ million and change in accounts payable was an increase of $\$ 1$ million. At the beginning of the year the balance of accounts receivable was $\$ 5$ million. What was the end of year balance for accounts receivable?
A. $\$ 2$ million
B. $\$ 3$ million
C. $\$ 7$ million
D. $\$ 9$ million

## Cash Flows from Operating Activities

| Net income | $\$ 15 \mathrm{~m}$. |
| :--- | :--- |
| dditions (sources of cash): <br> Depreciation | 6 m. |
| Increase accrued wages and taxes | 1 m. |
| Increase in accounts payable | 1 m. |
| Subtractions (uses of cash): |  |
| Increase in accounts receivable | $-2 \mathrm{~m} .(=\$ 17 \mathrm{~m} .-\$ 15 \mathrm{~m} .-\$ 6 \mathrm{~m} .-\$ 1 \mathrm{~m} .-\$ 1 \mathrm{~m} .+\$ 4 \mathrm{~m})$. |
| Increase in inventory | -4 m. |

Net cash flow from operating activities: $\$ 17 \mathrm{~m}$.
Thus, end of year balance of accounts receivable $=\$ 5 m+\$ 2 m=\$ 7 m$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Statement of Cash Flows

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63. Statement of Cash Flows Zoe's Dog Biscuits, Inc. has net cash flows from operating activities for the last year of $\$ 226$ million. The income statement shows that net income is $\$ 150$ million and depreciation expense is $\$ 85$ million. During the year, the change in inventory on the balance sheet was an increase of $\$ 14$ million, change in accrued wages and taxes was an increase of $\$ 15$ million and change in accounts payable was an increase of $\$ 10$ million. At the beginning of the year the balance of accounts receivable was $\$ 45$ million. What was the end of year balance for accounts receivable?
A. $\$ 20$ million
B. $\$ 25$ million
C. $\$ 45$ million
D. $\$ 65$ million

## Cash Flows from Operating Activities

| Net income \$ | \$ 150m. |
| :---: | :---: |
| Additions (sources of cash): |  |
| Depreciation | 85 m . |
| Increase accrued wages and taxes | 15 m . |
| Increase in accounts payable | 10 m . |
| Subtractions (uses of cash): |  |
| Increase in accounts receivable | - 20 m . ( $-\$ 226 \mathrm{~m}$. - S $150 \mathrm{~m} .-585 \mathrm{~m} .-\$ 15 \mathrm{~m} .-\$ 10 \mathrm{~m} .+\$ 14 \mathrm{~m}$. |
| Increase in inventory | -14m. |

Net cash flow from operating activities: $\$ 226 \mathrm{~m}$.

Thus, end of year balance of accounts receivable $=\$ 45 m+\$ 20 m=\$ 65 m$

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64. Statement of Cash Flows Nickolas's Nut Farms, Inc. has net cash flows from operating activities for the last year of $\$ 25$ million. The income statement shows that net income is $\$ 15$ million and depreciation expense is $\$ 6$ million. During the year, the change in inventory on the balance sheet was a decrease of $\$ 4$ million, change in accrued wages and taxes was a decrease of $\$ 1$ million and change in accounts payable was a decrease of $\$ 1$ million. At the beginning of the year the balance of accounts receivable was $\$ 5$ million. What was the end of year balance for accounts receivable?
A. $\$ 2$ million
B. $\$ 3$ million
C. $\$ 7$ million
D. $\$ 9$ million

## Cash Flows from Operating Activities

| Net income | $\$ 15 \mathrm{~m}$. |
| :--- | :--- |
| Additions (sources of cash): | 6 m. |
| Depreciation | $2 \mathrm{~m}(=\$ 25 \mathrm{~m} .-\$ 15 \mathrm{~m} .-\$ 6 \mathrm{~m} .-\$ 4 \mathrm{~m} .+\$ 1 \mathrm{~m} .-\$ 1 \mathrm{~m})$. |
| Decrease in accounts receivable | 4 m |
| Decrease in inventory |  |
| Subtractions (uses of cash): |  |
| Decerease accued wages and taxes | -1 m. |
| Decrease in accounts payable | -1 m. |

## Net cash flow from operating activities: $\$ 25 \mathrm{~m}$.

Thus, end of year balance of accounts receivable $=\$ 5 \mathrm{~m}-\$ 2 \mathrm{~m}=\$ 3 \mathrm{~m}$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.

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65. Statement of Cash Flows Crispy Corporation has net cash flow from financing activities for the last year of $\$ 20$ million. The company paid $\$ 5$ million in dividends last year. During the year, the change in notes payable on the balance sheet was an increase of $\$ 2$ million, and change in common and preferred stock was an increase of $\$ 3$ million. The end of year balance for longterm debt was $\$ 45$ million. What was their beginning of year balance for long-term debt?
A. $\$ 15$ million
B. $\$ 20$ million
C. $\$ 25$ million
D. $\$ 35$ million

## Cash Flows from Financing Activities

Additions:
Increase in notes payable
\$ 2m.
Increase in long-term debt
Increase in common and preferred stock Subtractions:
Pay stock dividends
$20 \mathrm{~m} .(=\$ 20 \mathrm{~m} .+\$ 5 \mathrm{~m} .-\$ 2 \mathrm{~m} .-3 \mathrm{~m})$
3 m .
-5 m .
Net cash flow from financing activities:
$\$ 20 \mathrm{~m}$.

Thus, beginning of year balance for long-term debt $=\$ 45-\$ 20 \mathrm{~m}=\$ 25 \mathrm{~m}$

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66. Statement of Cash Flows Full Moon Productions Inc. has net cash flow from financing activities for the last year of $\$ 105$ million. The company paid $\$ 15$ million in dividends last year. During the year, the change in notes payable on the balance sheet was an increase of $\$ 40$ million, and change in common and preferred stock was an increase of $\$ 50$ million. The end of year balance for long-term debt was $\$ 50$ million. What was their beginning of year balance for long-term debt?
A. $\$ 5$ million
B. $\$ 20$ million
C. $\$ 30$ million
D. $\$ 35$ million

## Cash Flows from Financing Activities

Additions:

| Increase in notes payable | $\$ 40 \mathrm{~m}$. |
| :--- | :---: |
| Increase in long-term debt | $30 \mathrm{~m} .(=\$ 105 \mathrm{~m} .+\$ 15 \mathrm{~m} .-\$ 40 \mathrm{~m} .-50 \mathrm{~m})$ |
| Increase in common and preferred stock | 50 m. |
| Subtractions: |  |
| Pay stock dividends | -15 m. |

Net cash flow from financing activities:
\$ 40 m .
$30 \mathrm{~m} .(=\$ 105 \mathrm{~m} .+\$ 15 \mathrm{~m} .-\$ 40 \mathrm{~m} .-50 \mathrm{~m})$
-15 m .
$\$ 105 \mathrm{~m}$.

Thus, beginning of year balance for long-term debt $=\$ 50-\$ 30 m=\$ 20 m$

AACSB: Analytic
67. Statement of Cash Flows Café Creations Inc. has net cash flow from financing activities for the last year of $\$ 25$ million. The company paid $\$ 15$ million in dividends last year. During the year, the change in notes payable on the balance sheet was a decrease of $\$ 40$ million, and change in common and preferred stock was an increase of $\$ 50$ million. The end of year balance for long-term debt was $\$ 40$ million. What was their beginning of year balance for long-term debt?
A. $\$ 10$ million
B. $\$ 20$ million
C. $\$ 30$ million
D. $\$ 40$ million


Thus, beginning of year balance for long-term debt $=\$ 40-\$ 30 \mathrm{~m}=\$ 10 \mathrm{~m}$

AACSB: Analytic
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.

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68. Free Cash Flow The 2010 income statement for Pete's Pumpkins shows that depreciation expense is $\$ 250$ million, EBIT is $\$ 500$ million, EBT is $\$ 320$ million, and the tax rate is 30 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 1,600$ million and net operating working capital was $\$ 640$ million. At the end of the year gross fixed assets was $\$ 2,000$ million. Pete's free cash flow for the year was $\$ 630$ million. What is their end of year balance for net operating working capital?
A. $\$ 24$ million
B. $\$ 264$ million C.
\$654 million D.
\$1,064 million

Taxes $=\$ 320 \mathrm{~m} \times(0.3)=\$ 96 \mathrm{~m}=>$ Pete's operating cash flow was: OCF $=$ EBIT - Taxes

+ Depreciation $=(\$ 500 m-\$ 96 m+\$ 250 m)=\$ 654 m$
Pete's free cash flow for 2010 was: $\mathrm{FCF}=$ Operating cash flow - Investment in operating capital $\$ 630 \mathrm{~m}=\$ 654 \mathrm{~m}$ - Investment in operating capital => Investment in operating capital = $\$ 654 m-\$ 630 m=\$ 24 m$

Accordingly, investment in operating capital for 2010 was: $\operatorname{IOC}=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital $\$ 24 \mathrm{~m}=(\$ 2,000 \mathrm{~m}-\$ 1,600 \mathrm{~m})+$ (Ending net operating working capital $-\$ 640 m)=>$ Ending net operating working capital $=\$ 24 m-(\$ 2,000 m-\$ 1,600 m)+\$ 640 m$ $=\$ 264 \mathrm{~m}$

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69. Free Cash Flow The 2013 income statement for Lou's Shoes shows that depreciation expense is $\$ 2$ million, EBIT is $\$ 5$ million, EBT is $\$ 3$ million, and the tax rate is 40 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 16$ million and net operating working capital was $\$ 6$ million. At the end of the year gross fixed assets was $\$ 20$ million. Lou's free cash flow for the year was $\$ 4$ million. What is their end of year balance for net operating working capital?
A. $\$ 1.8$ million B .
\$3.8 million C.
$\$ 5.8$ million D.
\$12.2 million

Taxes $=\$ 3 \mathrm{~m} \times(0.4)=\$ 1.2 \mathrm{~m}=>$
Lou's operating cash flow was:
OCF $=$ EBIT - Taxes + Depreciation
$=(\$ 5 m-\$ 1.2 m+\$ 2 m)=\$ 5.8 m$
Lou's free cash flow for 2010 was:
FCF = Operating cash flow - Investment in operating
capital $\$ 4 \mathrm{~m}=\$ 5.8 \mathrm{~m}$ - Investment in operating capital
=> Investment in operating capital $=\$ 5.8 \mathrm{~m}-\$ 4 \mathrm{~m}=\$ 1.8 \mathrm{~m}$
Accordingly, investment in operating capital for 2010 was:
IOC $=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital
$\$ 1.8 \mathrm{~m}=(\$ 20 \mathrm{~m}-\$ 16 \mathrm{~m})+($ Ending net operating working capital $-\$ 6 \mathrm{~m})$
=> Ending net operating working capital $=\$ 1.8 m-(\$ 20 m-\$ 16 m)+\$ 6 m=\$ 3.8 m$

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70. Free Cash Flow The 2013 income statement for Paige's Purses shows that depreciation expense is $\$ 10$ million, EBIT is $\$ 25$ million, EBT is $\$ 15$ million, and the tax rate is 30 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 80$ million and net operating working capital was $\$ 30$ million. At the end of the year gross fixed assets was $\$ 100$ million. Paige's free cash flow for the year was $\$ 20$ million. What is their end of year balance for net operating working capital?
A. $\$ 10.5$ million
B. $\$ 14$ million
C. $\$ 20.5$ million
D. $\$ 30.5$ million

Taxes $=\$ 15 \mathrm{~m} \times(0.3)=\$ 4.5 \mathrm{~m}=>$
Paige's operating cash flow was:
OCF $=$ EBIT - Taxes + Depreciation
$=(\$ 25 m-\$ 4.5 m+\$ 10 m)=\$ 30.5 m$
Paige's free cash flow for 2010 was:
FCF = Operating cash flow - Investment in operating
capital $\$ 20 \mathrm{~m}=\$ 30.5 \mathrm{~m}$ - Investment in operating capital
$=>$ Investment in operating capital $=\$ 30.5 \mathrm{~m}-\$ 20 \mathrm{~m}=\$ 10.5 \mathrm{~m}$
Accordingly, investment in operating capital for 2010 was:
$I O C=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital
$\$ 10.5 \mathrm{~m}=(\$ 100 \mathrm{~m}-\$ 80 \mathrm{~m})+$ (Ending net operating working capital $-\$ 30 \mathrm{~m})$
$=>$ Ending net operating working capital $=\$ 10.5 m-(\$ 100 m-\$ 80 m)+30 m=\$ 20.5 m$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium

Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Free Cash Flow

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71. Free Cash Flow The 2013 income statement for Betty's Barstools shows that depreciation expense is $\$ 100$ million, EBIT is $\$ 400$ million, and taxes are $\$ 120$ million. At the end of the year, the balance of gross fixed assets was $\$ 510$ million. The increase in net operating working capital during the year was $\$ 94$ million. Betty's free cash flow for the year was $\$ 625$ million. What was the beginning of year balance for gross fixed assets?
A. $\$ 359$ million
B. $\$ 380$ million
C. $\$ 849$ million
D. $\$ 1,094$ million

Betty's operating cash flow was:
OCF $=$ EBIT - Taxes + Depreciation
$=(\$ 400 \mathrm{~m}-\$ 120 \mathrm{~m}+\$ 100 \mathrm{~m})=\$ 380 \mathrm{~m}$
Betty's free cash flow for 2010 was:
FCF = Operating cash flow - Investment in operating
capital $\$ 625 \mathrm{~m}=\$ 380 \mathrm{~m}$ - Investment in operating capital
=> Investment in operating capital $=\$ 380 \mathrm{~m}-\$ 625 \mathrm{~m}=-\$ 245 \mathrm{~m}$
Accordingly, investment in operating capital for 2010 was:
IOC $=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital
$-\$ 245 m=(\$ 510 m-$ Beginning of year gross fixed assets) $+\$ 94 m$
=> Beginning of year gross fixed assets $=510 \mathrm{~m}-(-\$ 245 \mathrm{~m}) .+\$ 94 \mathrm{~m}=\$ 849 \mathrm{~m}$

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72. Free Cash Flow The 2013 income statement for John's Gym shows that depreciation expense is $\$ 20$ million, EBIT is $\$ 80$ million, and taxes are $\$ 24$ million. At the end of the year, the balance of gross fixed assets was $\$ 102$ million. The increase in net operating working capital during the year was $\$ 18$ million. John's free cash flow for the year was $\$ 41$ million. What was the beginning of year balance for gross fixed assets?
A. $\$ 43$ million
B. $\$ 85$ million
C. $\$ 84$ million
D. $\$ 163$ million

John's operating cash flow was:
OCF = EBIT - Taxes + Depreciation
$=(\$ 80 m-\$ 24 m+\$ 20 m)=\$ 76 m$
John's free cash flow for 2010 was:
FCF = Operating cash flow - Investment in operating
capital $\$ 41 \mathrm{~m}=\$ 76 \mathrm{~m}$ - Investment in operating capital
=> Investment in operating capital $=\$ 76 \mathrm{~m}-\$ 41 \mathrm{~m}=\$ 35 \mathrm{~m}$
Accordingly, investment in operating capital for 2010 was:
IOC $=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital
$\$ 35 m=(\$ 102 m-$ Beginning of year gross fixed assets $)+\$ 18 m$
=> Beginning of year gross fixed assets $=102 m-\$ 35 m+\$ 18 m=\$ 85 m$

AACSB: Analytic

Topic: Free Cash Flow
73. Statement of Retained Earnings Bike and Hike, Inc. started the year with a balance of retained earnings of $\$ 100$ million and ended the year with retained earnings of $\$ 128$ million. The company paid dividends of $\$ 9$ million to the preferred stock holders and $\$ 22$ million to common stock holders. What was Bike and Hike's net income for the year?
A. $\$ 28$ million
B. $\$ 31$ million
C. $\$ 59$ million
D. $\$ 128$ million

Statement of Retained Earnings as of December 31, 2013 (in millions of dollars)

Balance of Retained Earnings, December 31, 2012
$\$ 100 \mathrm{~m}$
Plus: Net Income for 2013
59 m
$(=\$ 128 m+31 m-100 m)$
Less: Cash Dividends Paid
Preferred Stock \$9m
Common Stock $\quad \underline{22 m}$
Total Cash Dividends Paid
31 m
Balance of Retained Earnings, December 31, 2013 \$ 128 m

AACSB: Analytic Blooms: Apply Difficulty: 2 Medium

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74. Statement of Retained Earnings Soccer Starz, Inc. started the year with a balance of retained earnings of $\$ 25$ million and ended the year with retained earnings of $\$ 32$ million. The company paid dividends of $\$ 2$ million to the preferred stock holders and $\$ 6$ million to common stock holders. What was Soccer Starz's net income for the year?
A. $\$ 7$ million B.
\$15 million C.
\$40 million D.
\$49 million

Statement of Retained Earnings as of December 31,
2013 (in millions of dollars)

Balance of Retained Earnings, December 31, 2012
\$ 25 m 15 m
$(=\$ 32 \mathrm{~m}+8 \mathrm{~m}-25 \mathrm{~m})$
Less: Cash Dividends Paid
Preferred Stock $\$ 2 \mathrm{~m}$
Common Stock 6 m
Total Cash Dividends Paid
Balance of Retained Earnings, December 31, 2013
$\$ \frac{8 \mathrm{~m}}{32 \mathrm{~m}}$

AACSB: Analytic Blooms: Apply

Difficulty: 2 Medium

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75. Statement of Retained Earnings Jamaican Ice Cream Corp. started the year with a balance of retained earnings of $\$ 100$ million. The company reported net income for the year of $\$ 45$ million, paid dividends of $\$ 2$ million to the preferred stock holders and $\$ 15$ million to common stock holders. What is Jamaican Ice Cream's end of year balance in retained earnings?
A. $\$ 38$ million
B. $\$ 55$ million
C. $\$ 128$ million
D. $\$ 162$ million

Statement of Retained Earnings as of December 31, 2013 (in millions of dollars)

Balance of Retained Earnings, December 31, 2012
$\$ 100 \mathrm{~m}$
Plus: Net Income for 2013
45 m
Less: Cash Dividends Paid Preferred Stock
\$2m
Common Stock
15 m
Total Cash Dividends Paid
Balance of Retained Earnings, December 31, 2013

17 m
\$ 128 m

AACSB: Analytic Blooms: Apply

Difficulty: 2 Medium

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76. Income Statement The following is the 2013 income statement for Lamps, Inc.

Lamps, Inc
Income Statement for Year Ending December 31, 2013
(in millions of dollars)

| Net sales | $\$ 100$ |
| :--- | ---: |
| Less: Cost of goods sold | $\underline{80}$ |
| Gross profits | 20 |
| Less: Depreciation | 15 |
| Earnings before interest and taxes (EBIT) | $\underline{2}$ |
| Less: Interest | 13 |
| Earnings before taxes (EBT) | $\underline{5}$ |
| Less: Taxes | $\underline{\$ 8}$ |
| Net Income |  |

The CEO of Lamps wants the company to earn a net income of $\$ 12$ million in 2014. Cost of goods sold is expected to be 75 percent of net sales, depreciation expense is not expected to change, interest expense is expected to increase to $\$ 4$ million, and the firm's tax rate will be 40 percent. What is the net sales needed to produce net income of $\$ 12$ million?
A. $\$ 29$ million
B. $\$ 112$ million
C. $\$ 116$ million
D. $\$ 124$ million

Lamps, Inc
Income Statement for Year Ending December 31, 2014
(in millions of dollars)

| Net sales | Step 4 | $\$ 116$ |
| :--- | :--- | ---: |
| Less: Cost of goods sold | Step 5 | 87 |
| Gross profits | Step 3 | 29 |
| Less: Depreciation |  | 5 |
| Earnings before interest and taxes (EBIT) | Step 2 | 24 |
| Less: Interest |  | $\boxed{2}$ |
| Earnings before taxes (EBT) | Step 1 | 20 |
| Less: Taxes |  | $\$ 12$ |
| Net Income |  | $\underline{\$ 12}$ |

Step 1: EBT $(1-\mathrm{t})=$ Net income $=\$ 12 \mathrm{~m}=$ EBT $(1-0.4)=>$ EBT $=\$ 12 \mathrm{~m} /(1-0.4)=\$ 20 \mathrm{~m}$
Step 2: EBIT $=$ EBT + Interest $=\$ 20 \mathrm{~m}+\$ 4 \mathrm{~m}=\$ 24 \mathrm{~m}$

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Step 3: Gross profits $=$ EBIT + Depreciation $=\$ 24 m+\$ 5 m=\$ 29 m$
Step 4: Net sales $=$ Gross profits/(1-Cost of goods sold percent $)=\$ 29 \mathrm{~m} /(1-0.75)=\$ 116 \mathrm{~m}$
Step 5: Cost of goods sold $=$ Sales - Gross profits $=\$ 116 m-\$ 29=\$ 87 m$

AACSB: Analytic
Blooms: Apply
Difficulty: 3 Hard
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement
77. Income Statement You have been given the following information for Halle's Holiday Store Corp. for the year 2013:

Net sales $=\$ 50,000,000$;
Cost of goods sold $=\$ 35,000,000$; Addition
to retained earnings $=\$ 2,000,000$;
Dividends paid to preferred and common stockholders =
$\$ 3,000,000$; Interest expense $=\$ 3,000,000$.
The firm's tax rate is 30 percent.
In 2014, net sales are expected to increase by $\$ 5$ million, cost of goods sold is expected to be 65 percent of net sales, expensed depreciation is expected to be the same as in 2013, interest expense is expected to be $\$ 2,500,000$, the tax rate is expected to be 30 percent of EBT, and dividends paid to preferred and common stockholders will not change. What is the addition to retained earnings expected in 2014 ?
A. $\$ 2,000,000$
B. $\$ 5,325,000$
C. $\$ 8,447,500$
D. $\$ 10,304,643$

Income Statement for Year Ending December 31, 2013 (in millions of dollars)
Net sales (all credit)
$\$ 50,000,000$
Less: Cost of goods sold $35,000,000$
Gross profits $15,000,000$
Less: Depreciation $(\$ 15,000,000-\$ 10,142,857) \quad 4.857 .143$
Earnings before interest and taxes (EBIT) $\$ 7,142,857+\$ 3,000,000 \quad 10,142,857$
Less: Interest
$3,000,000$
Earnings before taxes (EBT)
$\$ 5,000,000 /(1-0.30) \quad 7,142,857$
Less: Taxes
Net Income
$\$ 5.000 .000$
$\begin{array}{ll}\text { Less: Preferred and common stock dividends } & \$ 3,000,000 \\ \text { Addition to retained earnings } & \$ 2,000,000\end{array}$
78. Free Cash Flow Martha's Moving Van 4U, Inc. had free cash flow during 2013 of $\$ 1$ million, EBIT of $\$ 30$ million, tax expense of $\$ 8$ million, and depreciation of $\$ 4$ million. Using this information, what was Martha's Accounts Payable ending balance in 2013?
A. $\$ 5$ million $B$.
$\$ 15$ million C.
\$35 million D.
\$45 million

Martha's operating cash flow for 2013 was:
OCF $=$ EBIT - Taxes + Depreciation $=(\$ 30 m-\$ 8 m+\$ 4 m)=\$ 26 m$
Martha's free cash flow was:
FCF = Operating cash flow - Investment in operating capital $\$ 1 \mathrm{~m}=\$ 26 \mathrm{~m}$ - Investment in operating capital

So, Investment in operating capital $=\$ 26 \mathrm{~m}-\$ 1 \mathrm{~m}=\$ 25 \mathrm{~m}$ IOC
$=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital $\$ 25 \mathrm{~m}$
$=(\$ 40 \mathrm{~m}-\$ 30 \mathrm{~m})+\Delta$ Net operating working capital
$=>\Delta$ Net operating working capital $=\$ 25 m-(\$ 40 m-\$ 30 m)=\$ 15 m$
$\Delta$ Net operating working capital $=\$ 15 \mathrm{~m}=\Delta$ Current assets $-\Delta$ Current liabilities $\$ 15 m=(\$ 130 m-\$ 110 m)-\Delta$ Current liabilities
$=>\Delta$ Current liabilities $=(\$ 130 m-\$ 110 m)-\$ 15 m=$
$\$ 5 \mathrm{~m}=>2011$ Current liabilities $=\$ 85 \mathrm{~m}+\$ 5 \mathrm{~m}=\$ 90 \mathrm{~m}$
and 2011 Current liabilities $=$ Accrued wages and taxes + Accounts payable + Notes
payable $\$ 90 \mathrm{~m}=\$ 20 \mathrm{~m}+$ Accounts payable $+\$ 35 \mathrm{~m}$
=> Accounts payable $=\$ 908 \mathrm{~m}-\$ 20 \mathrm{~m}-\$ 35 \mathrm{~m}=\$ 35 \mathrm{~m}$

Martha's Moving Van 4U, Inc.
Balance Sheet as of December 31, 2012 and 2013
(in millions of dollars)
$20122013 \quad 2012 \quad 2013$

| Assets |  |  | Liabilities \& Equity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Current Assets |  |  | Current liabilities |  |  |
| Cash and marketable |  |  | Acerued wages and taxes | \$10 | \$20 |
| securities | \$10 | \$15 | Accounts payable | 40 | 35 |
| Accounts receivable | 20 | 25 | Notes payable | 30 | 35 |
| Inventory | 80 | 90 |  |  |  |
| Total | \$110 | \$130 | Total | \$85 | $\$ 95$ |
| Fised assets: |  |  | Long-term debt: | \$20 | \$25 |
| Gross plant and |  |  |  |  |  |
| Equipment | \$30 | \$ 40 | Stockholders' equity: |  |  |
| Less: Depreciation | 10 | 12 | Preferred stock ( 5 m shares) | \$5 | \$5 |
| Net plant and equipment | \$ 20 | \$28 | Common stock and paid in surplus | 10 | 10 |
| Other long-term |  |  | ( 20 m shares) |  |  |
| assets | 30 | 30 | Retained earnings | 40 | 58 |
| Total | \$50 | \$58 | Total | \$55 | \$73 |
| Total Assets. | \$160 | \$188 | Total liabilities \& equity \$ | \$160 | \$188 |

AACSB: Analytic
Blooms: Apply
Difficulty: 3 Hard
79. You are evaluating the balance sheet for Goodman's Bees Corporation. From the balance sheet you find the following balances: cash and marketable securities $=\$ 200,000$, accounts receivable $=$ $\$ 1,100,000$, inventory $=\$ 2,000,000$, accrued wages and taxes $=\$ 500,000$, accounts payable $=$ $\$ 600,000$, and notes payable $=\$ 100,000$. Calculate Goodman's Bees' net working capital.
A. $\$ 2,000,000$
B. $\$ 2,100,000$
C. $\$ 1,400,000$
D. $\$ 1,900,000$
$(0.2 m+1.1 m+2.0 m)-(0.5 m+0.6 m+0.1 m)=2.1 m$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Net Working Capital
80. Zoeckler Mowing \& Landscaping's year-end 2011 balance sheet lists current assets of $\$ 350,000$, fixed assets of $\$ 325,000$, current liabilities of $\$ 145,000$, and long-term debt of $\$ 185,000$. Calculate Zoeckler's total stockholders' equity.
A. $\$ 115,000$
B. $\$ 490,000$
C. $\$ 345,000$
D. $\$ 500,000$
$[0.350+0.325]-[0.145+0.185]=0.345 m$

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Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide. Topic: Balance Sheet
81. Reed's Birdie Shot, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 550,000$, interest expense $=\$ 43,000$, and net income $=\$ 300,000$. Calculate the 2013 taxes reported on the income statement.
A. $\$ 85,000$
B. $\$ 107,000$
C. \$309,000
D. $\$ 207,000$
$[0.550 m-0.043 m]-0.3 m=0.207 m$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement

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82. Reed's Birdie Shot, Inc.'s 2013 income statement lists the following income and expenses: EBIT $=\$ 555,000$, interest expense $=\$ 178,000$, and taxes $=\$ 148,000$. Reed's has no preferred stock outstanding and 100,000 shares of common stock outstanding. Calculate the 2013 earnings per share.
A. $\$ 3.49$
B. $\$ 2.29$
C. $\$ 3.14$
D. $\$ 2.79$
$[0.555 m-0.178 m-0.148 m] / 0.1 m=\$ 2.29$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement
83. Oakdale Fashions Inc. had $\$ 255,000$ in 2013 taxable income. If the firm paid $\$ 82,100$ in taxes, what is the firm's average tax rate?
A. $34.70 \%$
B. $32.20 \%$
C. $29.90 \%$
D. $28.20 \%$
$82100 / 255000=32.20 \%$

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84. Hunt Taxidermy, Inc. is concerned about the taxes paid by the company in 2013. In addition to $\$ 36.5$ million of taxable income, the firm received $\$ 1,250,000$ of interest on state-issued bonds and $\$ 400,000$ of dividends on common stock it owns in Hunt Taxidermy, Inc. Calculate Hunt Taxidermy's taxable income.
A. $\$ 40,250,000$
B. $\$ 38,150,000$
C. $\$ 36,900,000$
D. $\$ 36,620,000$
$\$ 36.5 \mathrm{~m}+(0.3) 0.4 \mathrm{~m}=36.620 \mathrm{~m}$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.

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85. Ramakrishnan Inc. reported 2013 net income of $\$ 20$ million and depreciation of $\$ 1,500,000$.

The top part of Ramakrishnan, Inc.'s 2012 and 2013 balance sheets is listed as follows (in millions of dollars).

|  | 2012 | 2013 |  | 2012 | 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  | Liabilities \& Equity |  |  |
| Current Assets |  |  | Current liabilities |  |  |
| Cash and marketable |  |  | Accrued wages and taxes | \$18 | \$20 |
| securities | \$15 | \$20 | Accounts payable | 45 | 50 |
| Accounts receivable | 75 | 84 | Notes payable | 40 | 45 |
| Inventory | 110 | 121 |  |  |  |
| Total | \$200 | \$225 | Total | \$103 | \$115 |

Calculate the 2013 net cash flow from operating activities for Ramakrishnan, Inc.
A. $\$ 12,500,000$
B. $\$ 10,500,000$
C. $\$ 8,500,000$
D. $\$ 7,100,000$
$20+[1.5+2+5]-[9+11]=\$ 8.5 m$
86. In 2014, Usher Sports Shop had cash flows from investing activities of $(\$ 2,150,000)$ and cash flows from financing activities of ( $\$ 3,219,000$ ). The balance in the firm's cash account was $\$ 980,000$ at the beginning of 2014 and $\$ 1,025,000$ at the end of the year. Calculate Usher Sports Shop's cash flow from operations for 2014.
A. $\$ 6,219,000$
B. $\$ 5,414,000$
C. $\$ 4,970,000$
D. $\$ 5,980,000$
$[1,025,000-980,000]=X-2,150,000-3,219,000 ;=>X=$ Cash flow from operations
$=\$ 5,414,000$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-04 Differentiate between accounting income and cash flows.
Topic: Statement of Cash Flows

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87. You are considering an investment in Fields and Struthers, Inc. and want to evaluate the firm's free cash flow. From the income statement, you see that Fields and Struthers earned an EBIT of $\$ 52$ million, paid taxes of $\$ 10$ million, and its depreciation expense was $\$ 5$ million. Fields and Struthers' gross fixed assets increased by $\$ 38$ million from 2012 to 2013. The firm's current assets increased by $\$ 20$ million and spontaneous current liabilities increased by $\$ 12$ million. Calculate Fields and Struthers' operating cash flow (OCF), investment in operating capital (IOC), and free cash flow (FCF) for 2013.
A. $O C F=\$ 42,000,000 ; I O C=\$ 37,000,000 ; F C F=\$ 5,000,000$
B. $O C F=\$ 47,000,000 ; \mathrm{IOC}=\$ 37,000,000 ; \mathrm{FCF}=\$ 10,000,000$
C. $O C F=\$ 42,000,000 ; I O C=\$ 46,000,000 ; F C F=-\$ 4,000,000$
D. $O C F=\$ 47,000,000 ; I O C=\$ 46,000,000 ; F C F=\$ 1,000,000$

OCF $=$ EBIT - Taxes + Depreciation $=(\$ 52 m-\$ 10 m+\$ 5 m)=\$ 47 m$
Investment in operating capital: $\Delta$ Gross fixed assets $+\Delta$ Net operating working capital $=\$ 38 \mathrm{~m}$ $+(\$ 20 m-\$ 12 m)=\$ 46 m$ Accordingly, Fields and Struthers' free cash flow for 2008 was: FCF
= Operating cash flow - Investment in operating capital $=\$ 47 \mathrm{~m}-\$ 46 \mathrm{~m}=\$ 1 \mathrm{~m}$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.

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88. Tater and Pepper Corp. reported free cash flows for 2013 of $\$ 20$ million and investment in operating capital of $\$ 15$ million. Tater and Pepper listed $\$ 8$ million in depreciation expense and $\$ 12$ million in taxes on its 2010 income statement. Calculate Tater and Pepper's 2013 EBIT.
A. $\$ 49,000,000$
B. $\$ 42,000,000$
C. $\$ 39,000,000$
D. $\$ 47,000,000$

FCF = Operating cash flow - Investment in operating capital; $\$ 20 m=X-\$ 15 m ; X=\$ 35 m$
OCF = EBIT - Taxes + Depreciation; \$35m = (EBIT $-\$ 12 \mathrm{~m}+\$ 8 \mathrm{~m}) ;$ EBIT $=\$ 39 \mathrm{~m}$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.

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89. Mr. Husker's Tuxedos, Corp. began the year 2013 with $\$ 205$ million in retained earnings. The firm earned net income of $\$ 30$ million in 2013 and paid $\$ 5$ million to its preferred stockholders and $\$ 12$ million to its common stockholders. What is the year-end 2013 balance in retained earnings for Mr. Husker's Tuxedos?
A. $\$ 193,000,000$
B. $\$ 200,000,000$
C. $\$ 213,000,000$
D. $\$ 218,000,000$
$\$ 205 m+\$ 30 m-\$ 5 m-\$ 12 m=\$ 218 m$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 1 Easy
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

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90. Brenda's Bar and Grill has total assets of $\$ 17$ million of which $\$ 5$ million are current assets. Cash makes up 12 percent of the current assets and accounts receivable makes up another 40 percent of current assets. Brenda's gross plant and equipment has a cost value of $\$ 12$ million and other longterm assets have a cost value of $\$ 1,000,000$. Using this information, what are the balance of inventory and the balance of depreciation on Brenda's Bar and Grill's balance sheet?
A. $\$ 2.4$ million; $\$ 1$ million
B. $\$ 3.4$ million; $\$ 2$ million
C. $\$ 1.4$ million; $\$ 1$ million
D. $\$ 0.4$ million; $\$ 3$ million

Step 1: Find Inventory: CA $=5=$ Cash $+A / R+\operatorname{Inv}=0.12 \times 5+0.40 \times 5+\operatorname{Inv} ;=>\operatorname{Inv}=\$ 2.4 m ;$
Step 2: Find Depreciation Expense: TA = CA + FA - Accumulated Depreciation.; $17=5+(12+$ 1) - Accumulated Depreciation; => Accumulated Depreciation $=\$ 1 \mathrm{~m}$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance Sheet

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91. Ed's Tobacco Shop has total assets of $\$ 100$ million. Fifty percent of these assets are financed with debt of which $\$ 37$ million is current liabilities. The firm has no preferred stock but the balance in common stock and paid-in surplus is $\$ 32$ million. Using this information what is the balance for long-term debt and retained earnings on Ed's Tobacco Shop's balance sheet?
A. $\$ 18$ million; $\$ 27$ million
B. $\$ 12$ million; $\$ 12$ million
C. $\$ 14$ million; $\$ 29$ million
D. $\$ 13$ million; $\$ 18$ million

Step 1: Find long-term debt: $\mathrm{TL}=\mathrm{CL}+$ long-term debt $=0.5 \times 100=50=37+$ long-term debt; long-term debt = \$13 million;

Step 2: Find RE: Total equity $=0.5 \times 100=50=\mathrm{CS}+\mathrm{P}-\mathrm{I}-\mathrm{S}+\mathrm{RE}=32+\mathrm{RE} ; \mathrm{RE}=\$ 18$ million

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance Sheet
92. Muffin's Masonry, Inc.'s balance sheet lists net fixed assets as $\$ 16$ million. The fixed assets could currently be sold for $\$ 17$ million. Muffin's current balance sheet shows current liabilities of $\$ 5.5$ million and net working capital of $\$ 6.5$ million. If all the current accounts were liquidated today, the company would receive $\$ 10.25$ million cash after paying $\$ 5.5$ million in liabilities. What is the book value of Muffin's Masonry's assets today? What is the market value of these assets?
A. Book Value: $\$ 28 \mathrm{~m} ;$ Market Value: $\$ 32.75 \mathrm{~m}$
B. Book Value: $\$ 32 \mathrm{~m}$; Market Value: $\$ 42.25 \mathrm{~m}$
C. Book Value: \$32m; Market Value: $\$ 32.75 \mathrm{~m}$
D. Book Value: $\$ 28 \mathrm{~m}$; Market Value: $\$ 42.25 \mathrm{~m}$

Step 1: Find CA (book value): $=C A-C L=N W C ;=>C A(b o o k ~ v a l u e)=6.5 m+5.5 m=\$ 12 \mathrm{~m}$
Step 2: Find TA (book value): TA = Net FA + CA = \$16m + \$12m = \$28m
Step 3: Find CA (market value): NWC (market) + CL $=\$ 10.25+\$ 5.5 \mathrm{~m}=\$ 15.75 \mathrm{~m}$
Step 4: Find TA (market value): Net FA $+C A=\$ 17 m+\$ 15.75 m=\$ 32.75 m$

AACSB: Analytic
Accessibility: Keyboard Navigation Blooms: Apply Difficulty: 2 Medium Learning Objective: 02-02 Differentiate between book (or accounting) value and market value. Topic: Market Value versus Book Value

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93. You have been given the following information for Corky's Bedding

Corp.: Net sales $=\$ 15,250,000$;
Cost of goods sold $=\$ 5,750,000$; Addition
to retained earnings $=\$ 4,000,000$;
Dividends paid to preferred and common stockholders =
$\$ 995,000$; Interest expense $=\$ 1,150,000$.
The firm's tax rate is 30 percent. Calculate the depreciation expense for Corky's Bedding Corp.
A. $\$ 1,210,000$
B. $\$ 1,970,000$
C. $\$ 1,520,000$
D. $\$ 1,725,000$

Step 1: $\mathrm{NI}=$ Dividends + Addition to $\mathrm{RE}=4 \mathrm{~m}+0.995 \mathrm{~m}=\$ 4.995 \mathrm{~m}$
Step 2: $\mathrm{NI}=$ EBT $(1-$ tax rate $)=>\mathrm{EBT}=\mathrm{NI} /(1-$ tax rate $)=\$ 4.995 \mathrm{~m} /(1-0.30)=\$ 7.14 \mathrm{~m}$
Step 3: EBIT - Interest $=$ EBT $=>$ EBIT $=\$ 7.14 \mathrm{~m}+\$ 1.15 \mathrm{~m}=\$ 8.29 \mathrm{~m}$
Step 4: Gross profits $=$ Net sales - COGS $=\$ 15.25 \mathrm{~m}-\$ 5.75 \mathrm{~m}=\$ 9.5 \mathrm{~m}$
Step 5: Gross profits - Depreciation $=$ EBIT $=>$ Depreciation $=\$ 9.5 \mathrm{~m}-\$ 8.29 \mathrm{~m}=\$ 1.21 \mathrm{~m}$

AACSB: Analytic
Accessibility: Keyboard Navigation Blooms: Apply

Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

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94. Dogs 4 U Corporation has net cash flow from financing activities for the last year of $\$ 10$ million. The company paid $\$ 8$ million in dividends last year. During the year, the change in notes payable on the balance was $\$ 9$ million, and change in common and preferred stock was $\$ 0$ million. The end of year balance for long-term debt was $\$ 44$ million. Calculate the beginning of year balance for long-term debt.
A. $\$ 37$ million
B. $\$ 34$ million
C. $\$ 33$ million
D. $\$ 35$ million
$\$ 10=\$ 9-\$ 8-\$ 0+$ Change in long-term debt; => change in long-term debt = \$9 =
Ending Bal - Change in long-term debt; => Beg balance of long-term debt = \$35

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium

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95. The 2011 income statement for Duffy's Pest Control shows that depreciation expense is $\$ 180$ million, EBIT is $\$ 420$ million, EBT is $\$ 240$ million, and the tax rate is 30 percent. At the beginning of the year, the balance of gross fixed assets was $\$ 1,500$ million and net operating working capital was $\$ 500$ million. At the end of the year gross fixed assets was $\$ 1,803$ million. Duffy's free cash flow for the year was $\$ 425$ million. Calculate the end of year balance for net operating working capital.
A. $\$ 403$ million
B. $\$ 300$ million
C. $\$ 203$ million
D. $\$ 103$ million

Step 1: Find OCF: OCF $=\$ 420-(\$ 240 \times 0.3)+\$ 180=\$ 528$;
Step 2: Find investment in operating capital: $\mathrm{FCF}=\$ 425=\$ 528$ - Investment in Op
Cap; Investment in operating capital $=\$ 103$
Step 3: Find ending level of net op. working cap: $\$ 103=(\$ 1803-\$ 1500)+($ Ending net op. working capital - \$500); Ending net op. working capital $=\$ 300$

AACSB: Analytic Accessibility: Keyboard Navigation

Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Free Cash Flow

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96. The CEO of Tom and Sue's wants the company to earn a net income of $\$ 3.25$ million in 2014. Cost of goods sold is expected to be 60 percent of net sales, depreciation expense is $\$ 2.9$ million, interest expense is expected to increase to $\$ 1.050$ million, and the firm's tax rate will be 30 percent. Calculate the net sales needed to produce net income of $\$ 3.25$ million.
A. $\$ 26.02$ million
B. $\$ 29.36$ million
C. $\$ 21.48$ million
D. $\$ 28.25$ million

Work backwards (up) the income statement: EBT $=3.25 / 1-0.3=\$ 4.64 \mathrm{~m} ;$ EBIT $=\$ 4.64 \mathrm{~m}$ $+\$ 1.05 \mathrm{~m}=\$ 5.69 \mathrm{~m} ;$ Gross Profits $=\$ 5.69 \mathrm{~m}+\$ 2.9=\$ 8.59 \mathrm{~m} ;$ Net sales $=\$ 8.59 /(1-0.6)=$ $\$ 21.475 \mathrm{~m}$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hard
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income Statement
97. All of the following would be a result of changing to the MACRS method of depreciation EXCEPT:
A. higher depreciation expense.
B. lower taxes in the early years of a project's life.
C. lower taxable income in the early years of a project's life.
D. All of the above.

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98. Which of the following is NOT a source of cash?
A. The firm reduces its inventory.
B. The firm pays off some of its long-term debt.
C. The firm has positive net income.
D. The firm sells more common stock.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Sources and Uses of Cash
99. Which of the following is a use of cash?
A. The firm takes its depreciation expense.
B. The firm sells some of its fixed assets.
C. The firm issues more long-term debt.
D. The firm decreases its accrued wages and taxes.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Analyze
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Sources and Uses of Cash

2-148
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100. Is it possible for a firm to have positive net income and yet to have cash flow problems?
A. No, this is impossible since net income increases the firm's cash.
B. Yes, this can occur when a firm is growing very rapidly.
C. Yes, this is possible if the firm window-dressed its financial statements.
D. No, this is impossible since net income and cash are highly correlated.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Learning Objective: 02-04 Differentiate between accounting income and cash flows.
Topic: Statement of Cash Flows
101. All of the following are cash flows from operations EXCEPT:
A. increases or decreases in cash.
B. net income.
C. depreciation.
D. increases or decreases in accounts payable.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms:
Understand
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Sources and Uses of Cash

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102. All of the following are cash flows from financing EXCEPT a(n):
A. increase in accounts payable.
B. issuing stock.
C. stock repurchases.
D. paying dividends.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms:
Understand
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Sources and Uses of Cash
103. Cash flows available to pay the firm's stockholders and debt holders after the firm has made the necessary working capital investments, fixed asset investments, and developed the necessary new products to sustain the firm's ongoing operations is referred to as:
A. operating cash flow.
B. net operating working capital.
C. free cash flow.
D. None of the above.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms:
Understand
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.

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104. Investment in operating capital is:
A. the change in assets plus the change in current liabilities.
B. the change in gross fixed assets plus depreciation.
C. the change in gross fixed assets plus the change in free cash flow.
D. None of the above.

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms:
Understand
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Free Cash Flow
105. A firm had EBIT of $\$ 1,000$, paid taxes of $\$ 225$, expensed depreciation at $\$ 13$, and its gross fixed assets increased by $\$ 25$. What was the firm's operating cash flow?
A. $\$ 763$
B. $\$ 737$
C. $\$ 813$
D. $\$ 788$
$\$ 1,000-\$ 225+\$ 13=\$ 788$

AACSB: Analytic
Accessibility: Keyboard Navigation

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106. Which of the following is an example of a capital structure?
A. 15 percent current assets and 85 percent fixed assets
B. 10 percent current liabilities and 90 percent long-term debt
C. 20 percent debt and 80 percent equity
D. None of the above

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms:
Understand
Difficulty: 2 Medium
Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance Sheet
107. Lemmon Inc. lists fixed assets of $\$ 100$ on its balance sheet. The firm's fixed assets have recently been appraised at $\$ 140$. The firm's balance sheet also lists current assets at $\$ 15$. Current assets were appraised at $\$ 16.50$. Current liabilities book and market values stand at $\$ 12$ and the firm's long-term debt is $\$ 40$. Calculate the market value of the firm's stockholders' equity.
A. $\$ 156.50$
B. $\$ 112.50$
C. $\$ 104.50$
D. $\$ 144.50$
$[\$ 140+\$ 16.50]-\$ 12-\$ 40=\$ 104.50$

Learning Objective: 02-01 Recall the major financial statements that firms must prepare and provide.

2-152
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108. A firm has operating income of $\$ 1,000$, depreciation expense of $\$ 185$, and its investment in operating capital is $\$ 400$. The firm is 100 percent equity financed and has a 35 percent tax rate. What is the firm's operating cash flow?
A. $\$ 725$
B. $\$ 795$
C. $\$ 835$
D. $\$ 965$
$[\$ 1,000-\$ 350+\$ 185]=\$ 835$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Income Statement
109. All of the following are reasons that one should be cautious in interpreting financial statements EXCEPT:
A. Firms can take steps to over- or understate earnings at various times.
B. It is difficult to compare two firms that use different depreciation methods.
C. Financial managers have quite a bit of latitude in using accounting rules to manage their reported earnings.
D. All of these are reasons to be cautious in interpreting financial statements.

AACSB: Analytic
Accessibility: Keyboard Navigation

Learning Objective: 02-06 Observe cautions that should be taken when examining financial statements.

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110. Which of the following statements is correct?
A. The bottom line on the statement of cash flows equals the change in the retained earnings on the balance sheet.
B. The reason the statement of cash flows is important is because cash is what pays the firm's obligations, not accounting profit.
C. If a firm has accounting profit, its cash account will always increase.
D. All of these statements are correct.

AACSB: Analytic Accessibility: Keyboard Navigation Blooms: Understand

Difficulty: 2 Medium Learning Objective: 02-04 Differentiate between accounting income and cash flows. Topic: Statement of Cash Flows
111. ABC Inc. has $\$ 100$ in cash on its balance sheet at the end of 2009. During 2010, the firm issued $\$ 450$ in common stock, reduced its notes payable by $\$ 40$, purchased fixed assets in the amount of $\$ 750$, and had cash flows from operating activities of $\$ 315$. How much cash did ABC Inc. have on its balance sheet at the end of 2010?
A. $\$ 75$
B. $\$ 140$
C. $\$ 225$
D. $-\$ 25$
$100+315-40-750+450=\$ 75$

AACSB: Analytic
Accessibility: Keyboard Navigation

2-154
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112. LLV Inc. originally forecasted the following financial data for next year: sales $=\$ 1,000$, cost of goods sold $=\$ 675$, and interest expense $=\$ 90$. The firm believes that COGS will always be 67.5 percent of sales. Due to increased global demand, the firm is now projecting that sales will be 20 percent higher than the original forecast. What is the additional net income (as compared to the original forecast) the firm can expect assuming a 35 percent tax rate?
A. $\$ 59.45$
B. $\$ 195.00$
C. $\$ 42.25$
D. $\$ 74.00$

Step 1: Original forecasted $\mathrm{NI}=[(1,000-675)-90](1-0.35)=152.75$;
Step 2: NI under increase in sales $=[1,200-(0.675 \times 1,200)-90](1-0.35)=$
195; Additional NI $=195-152.75=42.25$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hard

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113. LLV Inc. originally forecasted the following financial data for next year: sales $=\$ 1,000$, cost of goods sold $=\$ 710$, and interest expense $=\$ 95$. The firm believes that COGS will always be 71 percent of sales. Due to pressure from shareholders, the firm wants to achieve a net income of $\$ 150$. Assuming the interest expense will remain the same, how large must sales be to achieve this goal? Assume a 35 percent tax rate.
A. $\$ 1,403.82$
B. $\$ 1,3009.18$
C. $\$ 1,123.34$
D. $\$ 1,296.51$

150/(1-0.35) $=$ EBT $=230.77 ;$ EBT + Int Exp $=$ EBIT $=325.77 ;$ EBIT/( $1-0.71$ ) $=$ Sales $=1,123.34$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 3 Hard
114. A firm has sales of $\$ 690$, EBIT of $\$ 300$, depreciation of $\$ 40$, and fixed assets increased by $\$ 265$. If the firm's tax rate is 40 percent and there were no increases in net operating working capital, what is the firm's free cash flow?
A. $\$ 15$
B. $\$ 75$
C. $-\$ 45$
D. $-\$ 55$
$[300-(300 \times 0.4)+40]-265=F C F=-\$ 45$

AACSB: Analytic
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Free Cash Flow
115. GW Inc. had $\$ 800$ million in retained earnings at the beginning of the year. During the year, the firm paid $\$ 0.75$ per share dividend and generated $\$ 1.92$ earnings per share. The firm has 100 million shares outstanding. At the end of year, what was the level of retained earnings for GW?
A. $\$ 725$ million
B. $\$ 917$ million
C. $\$ 882$ million
D. $\$ 807$ million
$800 \mathrm{~m}+[1.92 \times 100 \mathrm{~m}]-[0.75 \times 100 \mathrm{~m}]=\$ 917 \mathrm{~m}$

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Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Statement of Retained Earnings

## Essay Questions

 statement of cash flows for Betty's Bakery Corp.Betty's Bakery Corp.
Balance Sheet as of December 31, 2012 and 2013
(in millions of dollars)
$20122013 \quad 2012 \quad 2013$

| Assets |  |  | Liabilities \& Equity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Current Assets |  |  | Current liabilities |  |  |
| Cash and marketable |  |  | Accrued wages and taxes | \$ 5 | \$ 4 |
| Securities | \$12 | \$ 5 | Accounts payable | 18 | 16 |
| Accounts receivable | 21 | 15 | Notes payable | 35 | 30 |
| Inventory | 25 | 30 |  |  |  |
| Total | \$58 | \$ 50 | Total | \$58 | \$50 |
| Fixed assets: |  |  | Long-term debt: | \$40 | \$45 |
| Gross plant and |  |  |  |  |  |
| Equipment | \$ 60 | \$80 | Stockholders* equity: |  |  |
| Less: Depreciation 10 15 <br>    <br> Net plant and   |  |  | Preferred stock (1m shares) \$1 |  | \$ 1 |
|  |  |  | Common stock and paid in surplus | 4 | 4 |
| Other long-term |  |  | ( 4 m shares) |  |  |
| assets | 20 | 25 | Retained earnings | 25 | 40 |
| Total | \$ 70 | \$90 | Total | \$30 | \$45 |
| Total Assets | \$128 | \$140 | Total liabilities \& equity \$ | \$128 | \$140 |

Betty's Bakery Corp.
Income Statement for Years Ending December 2012 and 2013
(in millions of dollars)
Net Sales
Less: Cost of goods sold
Gross profits
Less: Depreciation
Earnings before interest and taxes (EBIT)
Less: Interest
Earnings before taxes (EBT)
Less: Taxes
Net income
Less: Preferred stock dividends
Net income available to common stockholders
Less: Common stock dividends
Addition to retained earnings
Per (common) share data:

| Earnings per share (EPS) | $\$ 6.75$ | $\$ 4.00$ |
| :--- | ---: | ---: |
| Dividends per share (DPS) | $\$ 0.25$ | $\$ 0.50$ |
| Book value per share (BV) | $\$ 22.00$ | $\$ 23.75$ |
| Market value per share (MV) | $\$ 24.00$ | $\$ 24.25$ |

# Statement of Cash Flows for Year Ending December 31, 2013 (in millions of dollars) 

A. Cash Flows from Operating ActivitiesNet Income ..... \$ 16Additions (sources of cash):
Depreciation ..... 2
Decrease in accounts receivable ..... 6
Subtractions (uses of cash):
Decrease accrued wages and taxes ..... -1
Decrease in accounts payable ..... -2
Increase in inventory ..... -5
Net cash flow from operating activities ..... \$ 16
B. Cash Flows from Investing Activities
Subtractions:
Increase fixed assets ..... -\$20
Increase in other long-term assets ..... -0
Net cash flow from investing activities ..... $-\$ 20$
C. Cash Flows from Financing Activities Additions:
Increase in long-term debt ..... \$ 5
Increase in common and preferred stock ..... 0
Subtractions:
Decrease in notes payable ..... $-5$
Pay preferred stock dividends ..... -1
Pay common stock dividends ..... $-2$
Net cash flow from financing activities ..... - \$3
D. Net Change in Cash and Marketable Securities ..... - $\mathbf{- 5 7}$
117. When might earnings management become an ethical consideration?

Per authors' end of chapter questions: Managers and financial analysts have recognized for years that firms use considerable latitude in using accounting rules to manage their reported earnings in a wide variety of contexts. Indeed, within the GAAP framework, firms can "smooth" earnings. That is, firms often take steps to over- or understate earnings at various times.

Managers may choose to smooth earnings to show investors that firm assets are growing steadily. Similarly, one firm may be using straight line depreciation for its fixed assets, while another is using a modified accelerated cost recovery method (MACRS), which causes depreciation to accrue quickly. If the firm uses MACRS accounting methods, they write fixed asset values down quickly; assets will thus have lower book value than if the firm used straight line depreciation methods. This process of controlling a firm's earnings is called earnings management.

Ethical considerations: Earnings management could become an ethical issue if managers started applying GAAP inconsistently throughout accounting periods in order to "manage" the financial reports given to outsiders and/or insiders. One example could be the smoothing previously mentioned.

AACSB: Ethics
Blooms: Create
Blooms: Evaluate
Difficulty: 2 Medium
Learning Objective: 02-06 Observe cautions that should be taken when examining financial statements.

## 2-161

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118. How do taxes influence how corporate managers and investors structure transactions and capitalize their companies?

Many firms pay out much of their earnings in taxes. The focus on this chapter has been income taxes, but there are other taxes that a company must pay, too. Many companies will look for transactions with tax advantages. One such example would be to finance their company with debt versus equity. Interest payments are deductible from income taxes, whereas dividend payments are not.

AACSB: Reflective Thinking
Blooms: Create
Blooms: Evaluate
Difficulty: 2 Medium
Learning Objective: 02-03 Explain how taxes influence corporate managers' and investors' decisions.
Topic: Corporate Income Taxes
119. How would you explain to a friend why market value of a firm is more important to an investor than book value of the firm?

What assets can be sold (market value) for might differ than the historical costs that are reflected on the balance sheet. What the equity can be sold for (market value or price per share) might differ from the balances reflected in the stockholder equity section of the balance sheet. Financial managers and investors are often more concerned with the value of physical and financial assets in the market place and find those numbers more relevant than what is reported on the balance sheet.

NOTE: (was an end of chapter question with a new twist)

AACSB: Reflective Thinking
Blooms: Understand
Difficulty: 2 Medium

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120. What are free cash flows for a firm? What does it mean when a firm's free cash flow is negative?

Free cash flows are the cash flows available to pay the firm's stockholders and debt holders after the firm has made the necessary working capital investments, fixed asset investments, and developed the necessary new products to sustain the firm's ongoing operations. If free cash flow is negative, the firm's operations produce no cash flows available for investors.

AACSB: Analytic
Blooms: Understand
Difficulty: 2 Medium
Learning Objective: 02-05 Demonstrate how to use a firm's financial statements to calculate its cash flows.
Topic: Free Cash Flow
121. What are the costs and benefits of holding liquid securities on a firm's balance sheet?

The more liquid assets a firm holds, the less likely the firm will be to experience financial distress. However, liquid assets generate no profits for a firm. For example, cash is the most liquid of all assets, but it earns no return for the firm. In contrast, fixed assets are illiquid, but provide the means to generate revenue. Thus, managers must consider the trade-off between the advantages of liquidity on the balance sheet and the disadvantages of having money sit idle rather than generating profits.

AACSB: Analytic

Difficulty: 1 Easy

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