# Test Bank for Finance Applications and Theory 4th Edition by Cornett Adair Nofsinger ISBN 12596914119781259691416 <br> Full link download: <br> Test Bank: <br> https://testbankpack.com/p/test-bank-for-finance-applications-and-theory-4th-edition-by-cornett-adair-nofsinger-isbn-1259691411-9781259691416/ <br> Solution Manual: https://testbankpack.com/p/solution-manual-for-finance-applications-and-theory-4th-edition-by-cornett-adair-nofsinger-isbn-1259691411$\underline{9781259691416 /}$ 

## 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
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 paid-in surplus?
A. balance sheet
B. income statement
C. statement of cash flows
D. statement of retained earnings
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

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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
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
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' calculating equity divided by number of shares of common stock outstanding is the formula for
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 stockholders
B. the number of shares of stock outstanding
C. the earnings per share (EPS)
D. all of these choices are correct.
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.
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 cost
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. all of these choices are correct.
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 with 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.
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. 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. Jack and Jill Corporation's year-end 2018 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 stockholders' equity.
24. Bullseye, Inc.'s 2018 income statement lists the following income and expenses: EBIT $=\$ 900,000$, interest expense $=\$ 85,000$, and net income $=\$ 570,000$. What are the 2018 taxes reported on the income statement?
A. $\$ 245,000$
B. $\$ 330,000$
C. $\$ 815,000$
D. There is not enough information to calculate 2018 taxes.
25. 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 $\$ 0.72$
26. 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. Barnyard, Inc.'s 2018 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 2018 earnings per share?
A. $\$ 2.50$
B. $\$ 2.275$
C. $\$ 1.74$
D. $\$ 1.515$
28.

Eccentricity, Inc. had $\$ 300,000$ in 2018 taxable income. Using the tax schedule from Table 2.3, what are the company's 2018 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 | $25 \%$ |
| $\$ 75,001-\$ 100,000$ | $\$$ | 13,750 | $34 \%$ |
| $\$ 100,001-\$ 335,000$ | $\$$ | 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.

Swimmy, Inc. had \$400,000 in 2018 taxable income. Using the tax schedule from Table 2.3, what are the company's 2018 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 | $25 \%$ |
| $\$ 75,001-\$ 100,000$ | $\$$ | 13,750 | $34 \%$ |
| $\$ 100,001-\$ 335,000$ | $\$$ | 22,250 | $29 \%$ |
| $\$ 335,000-\$ 10,000,000$ | $\$$ | 113,900 | $34 \%$ |

A. $\$ 22,100,5.53 \%, 34 \%$
B. $\$ 113,900,28.48 \%, 34 \%$
C. $\$ 136,000,34.00 \%, 34 \%$
D. $\$ 136,000,39.00 \%, 34 \%$
30. Scuba, Inc. is concerned about the taxes paid by the company in 2018. 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.

Paige's Properties Inc. reported 2018 net income of $\$ 5$ million and depreciation of $\$ 1,500,000$. The top part Paige's Properties, Inc.'s 2017 and 2018 balance sheets is listed as follows (in millions of dollars).

| Current assets | 2017 | 2018 | Current liabilities | 2017 | 2018 |
| :--- | ---: | ---: | :--- | ---: | ---: |
| Cash and marketable securities | $\$ 10$ | $\$ 20$ | Accrued wages and taxes | $\$ 5$ | $\$ 11$ |
| Accounts receivable | 20 | 34 | Accounts payable | 25 | 29 |
| Inventory | 10 | 11 | Notes payable | 10 | 25 |
| Total | $\$ 40$ | $\$ 65$ | Total | $\$ 40$ | $\$ 65$ |

What is the 2018 net cash flow from operating activities for Paige's Properties, Inc.?
A. $-\$ 13,500,000$
B. $\$ 1,500,000$
C. $\$ 5,000,000$
D. $\$ 6,500,000$
32. In 2018, 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 2018 and $\$ 105,000$ at the end of the year. What was Upper Crust's cash flow from operations for 2018 ?
A. $\$ 15,000$
B. $\$ 105,000$
C. $\$ 400,000$
D. $\$ 415,000$
33.

In 2018, 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 2018 and $\$ 65,000$ at the end of the year. What was Lower Case's cash flow from operations for 2018?
A. $-\$ 15,000$
B. $-\$ 150,000$
C. $-\$ 165,000$
D. $-\$ 65,000$
34. 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 2017 to 2018 . 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 2018 , respectively in millions?
A. $\$ 23, \$ 10, \$ 13$
B. $\$ 23, \$ 12, \$ 11$
C. $\$ 27, \$ 10, \$ 17$
D. $\$ 27, \$ 12, \$ 15$
35. 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 2017 to 2018. 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 2018, respectively, in millions?
A. $\$ 202, \$ 70, \$ 130$
B. $\$ 226, \$ 70, \$ 156$
C. $\$ 226, \$ 54, \$ 172$
D. $\$ 226, \$ 74, \$ 152$
36. Catering Corp. reported free cash flows for 2018 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 2018 income statement. What was Catering's 2018 EBIT?
A. $\$ 7$ million
B. $\$ 10$ million
C. $\$ 11$ million
D. $\$ 13$ million
37. TriCycle, Corp. began the year 2018 with $\$ 25$ million in retained earnings. The firm earned net income of $\$ 7$ million in 2018 and paid $\$ 1$ million to its preferred stockholders and $\$ 3$ million to its common stockholders. What is the year-end 2018 balance in retained earnings for TriCycle?
A. $\$ 25$ million
B. $\$ 28$ million
C. $\$ 32$ million
D. $\$ 36$ million
38. Night Scapes, Corp. began the year 2018 with $\$ 10$ million in retained earnings. The firm suffered a net loss of $\$ 2$ million in 2018 and yet paid $\$ 2$ million to its preferred stockholders and $\$ 1$ million to its common stockholders. What is the year-end 2018 balance in retained earnings for Night Scapes?
A. $\$ 5$ million
B. $\$ 8$ million
C. $\$ 9$ million
D. $\$ 15$ million
39.

Use the following information to find dividends paid to common stockholders during 2018.

| Balance of Retained Earnings, December 31, 2017 |  | \$ 52m |
| :---: | :---: | :---: |
| Plus: Net Income for 2018 |  | 21 m |
| Less: Cash Dividends Paid |  |  |
| Preferred Stock | \$ 7m |  |
| Common Stock | 10 m |  |
| Total Cash Dividends Paid |  | 17 m |
| Balance of Retained Earnings, December 31, 2018 |  | \$56m |

A. $\$ 3$ million
B. $\$ 4$ million
C. $\$ 10$ million
D. $\$ 17$ million
40. 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. 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. 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
43. 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. 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
45. 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. 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
47. 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. 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
49. 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. 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. $\$ 14,400,000$
51. 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. 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. $\$ 820,000$
53. 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. $\mathbf{\$ 2 0 0}, 000$, and $\mathbf{\$ 2 0 , 0 0 0}$, respectively
D. $\$ 200,000$, and $\$ 36,500$, respectively
54. 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
55. 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.

The Carolina Corporation had a 2018 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
57.

The Ohio Corporation had a 2018 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.

The Sasnak Corporation had a 2018 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
59.

The AOK Corporation had a 2018 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. 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
61. 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. 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
63. 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. 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
65. 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 long-term 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. 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
67. 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
68. 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
69. The 2018 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. The 2018 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
71. The 2018 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. The 2018 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
73. 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 stockholders 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. 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 stockholders and $\$ 6$ million to common stockholders. What was Soccer Starz's net income for the year?
A. $\$ 7$ million
B. $\$ 15$ million
C. $\$ 40$ million
D. $\$ 49$ million
75. 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 stockholders and $\$ 15$ million to common stockholders. 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
76.

The following is the 2018 income statement for Lamps, Inc.

| Lamps, Inc. <br> Income Statement for Year Ending December 31, 2018 (in millions of dollars) | \$100 |
| :---: | :---: |
|  |  |
| Net sales |  |
| Less: Cost of goods sold | 80 |
| Gross profits | 20 |
| Less: Depreciation | 5 |
| Earnings before interest and taxes (EBIT) | 15 |
| Less: Interest | 2 |
| Earnings before taxes (EBT) | 13 |
| Less: Taxes | 5 |
| Net income | \$8 |

The CEO of Lamps wants the company to earn a net income of $\$ 12$ million in 2018. 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
77.

You have been given the following information for Halle's Holiday Store Corp. for the year 2017: 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 2018, 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 2017, 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 2018 ?
A. $\$ 2,000,000$
B. $\$ 5,325,000$
C. $\$ 8,447,500$
D. $\$ 10,304,643$
78. Martha's Moving Van 4U, Inc. had free cash flow during 2018 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 2018?
A. $\$ 5$ million
B. $\$ 15$ million
C. $\$ 35$ million
D. $\$ 45$ million
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 2018 income statement lists the following income and expenses: EBIT $=\$ 550,000$, interest expense $=\$ 43,000$, and net income $=\$ 300,000$. Calculate the 2018 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 2018 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 2018 earnings per share.
A. $\$ 3.49$
B. $\$ 2.29$
C. $\$ 3.14$
D. $\$ 2.79$
83. Oakdale Fashions Inc. had $\$ 255,000$ in 2018 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 2018. 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. $\$ 36,620,000$

Ramakrishnan Inc. reported 2018 net income of $\$ 20$ million and depreciation of $\$ 1,500,000$. The top part of Ramakrishnan, Inc.'s 2017 and 2018 balance sheets is listed as follows (in millions of dollars).

| Assets | 2017 | 2018 |  | Liabilities \& Equity | 2017 | 2018 |
| :--- | ---: | ---: | :--- | ---: | ---: | ---: |
| Current assets |  |  | Current liabilities |  |  |  |

Calculate the 2018 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 2018, 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 2018 and $\$ 1,025,000$ at the end of the year. Calculate Usher Sports Shop's cash flow from operations for 2018.
A. $\$ 6,219,000$
B. $\$ 5,414,000$
C. $\$ 4,970,000$
D. $\$ 5,980,000$
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. $\mathrm{OCF}=\$ 42,000,000 ; \mathrm{IOC}=\$ 37,000,000 ; \mathrm{FCF}=\$ 5,000,000$
B. $\mathrm{OCF}=\$ 47,000,000 ; \mathrm{IOC}=\$ 37,000,000 ; \mathrm{FCF}=\$ 10,000,000$
C. $\mathrm{OCF}=\$ 42,000,000 ; \mathrm{IOC}=\$ 46,000,000 ; \mathrm{FCF}=-\$ 4,000,000$
D. $\mathrm{OCF}=\$ 47,000,000 ; \mathrm{IOC}=\$ 46,000,000 ; \mathrm{FCF}=\$ 1,000,000$
88. Tater and Pepper Corp. reported free cash flows for 2018 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 2018 income statement. Calculate Tater and Pepper's 2018 EBIT.
A. $\$ 49,000,000$
B. $\$ 42,000,000$
C. $\$ 39,000,000$
D. $\$ 47,000,000$
89. Mr. Husker's Tuxedos, Corp. began the year 2018 with $\$ 205$ million in retained earnings. The firm earned net income of $\$ 30$ million in 2018 and paid $\$ 5$ million to its preferred stockholders and $\$ 12$ million to its common stockholders. What is the year-end 2018 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
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: $\$ 28 \mathrm{~m}$; Market Value: $\$ 42.25 \mathrm{~m}$
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
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 these choices are correct.
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 $E X C E P T$
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.
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 options.
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
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. $\$ 144.50$
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 choices are correct.
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 choices are correct.
111. ABC Inc. has $\$ 100$ in cash on its balance sheet at the end of 2017. During 2018, 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 2018 ?
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. $\$ 74.00$
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
116. For which of the following would one expect the book value of the asset to differ widely from its market value?
A. accounts receivable
B. accounts payable
C. notes payable
D. equity
117. Which of these is the term for the ease of conversion of an asset into cash at a fair value?
A. liquidity
B. fair Market Value (FMV)
C. book Value
D. current Asset
118. Epic, Inc.'s 2018 income statement lists the following income and expenses: EBIT $=\$ 1,000,000$, interest expense $=\$ 75,000$, and taxes $=\$ 277,500$. Epic has no preferred stock outstanding and 100,000 shares of common stock outstanding. What are its 2018 earnings per share?
A. $\$ 10.00$
B. $\$ 9.25$
C. $\$ 7.225$
D. $\$ 6.475$
119. Downtown Development, Inc.'s 2018 income statement lists the following income and expenses: EBIT = \$700,000, interest expense $=\$ 100,000$, and taxes $=\$ 168,000$. Downtown has no preferred stock outstanding and 50,000 shares of common stock outstanding. What are its 2018 earnings per share?
A. $\$ 14.00$
B. $\$ 12.00$
C. $\$ 10.64$
D. $\$ 8.64$
120.

You are evaluating the balance sheet for Epic Corporation. From the balance sheet you find the following balances:
cash and marketable securities $=\$ 500,000$, accounts receivable $=\$ 200,000$, inventory $=\$ 100,000$, accrued wages and taxes $=$ $\$ 50,000$, accounts payable $=\$ 60,000$, and notes payable $=\$ 200,000$. Calculate Epic's net working capital.
A. $\$ 490,000$
B. $\$ 540,000$
C. $\$ 690,000$
D. $\$ 800,000$
121.

You are evaluating the balance sheet for Ultra Corporation. From the balance sheet you find the following balances:
cash and marketable securities $=\$ 10,000$, accounts receivable $=\$ 2,000$, inventory $=\$ 20,000$, accrued wages and taxes $=$ $\$ 1,000$, accounts payable $=\$ 3,000$, and notes payable $=\$ 10,000$. Calculate Ultra's net working capital.
A. $\$ 8,000$
B. $\$ 18,000$
C. $\$ 28,000$
D. $\$ 32,000$
122. Which of the following is the term within the GAAP framework whereby firms can engage in a process of controlling their earnings, otherwise known as "smoothing" their earnings, as long as it's not taken to an extreme.
A. commingling
B. delisting
C. window dressing
D. earnings management
123. A firm has sales of $\$ 10,000$, EBIT of $\$ 3,000$, depreciation of $\$ 400$, and fixed assets increased by $\$ 2,000$. If the firm's tax rate is 30 percent and there were no increases in net operating working capital, what is the firm's free cash flow?
A. $\$ 7400$
B. $\$ 600$
C. $\$ 500$
D. $-\$ 1,220$
124. A firm has sales of $\$ 50,000$, EBIT of $\$ 10,000$, depreciation of $\$ 4,000$, and fixed assets increased by $\$ 2,000$. If the firm's tax rate is 30 percent and a $\$ 1,000$ increase in net operating working capital, what is the firm's free cash flow?
A. $\$ 10,000$
B. $\$ 9,000$
C. $\$ 8,000$
D. $\$ 1,200$
125. Ultra Inc. had $\$ 100$ million in retained earnings at the beginning of the year. During the year, the firm paid $\$ 0.25$ per share dividend and generated $\$ 2.00$ earnings per share. The firm has 10 million shares outstanding. At the end of year, what was the level of retained earnings for GW?
A. $\$ 100$ million
B. $\$ 117.5$ million
C. $\$ 120$ million
D. $\$ 145$ million

## 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 Basic
Learning Goal: 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

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income statement
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 Basic
Learning Goal: 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

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Statement of retained earnings
5. On which of the four major financial statements would you find the common stock and paid-in 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 Basic
Learning Goal: 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 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide. Topic: Statement of cash flows
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 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance sheet

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

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Remember Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Financial statements
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 Basic
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Market and book values
10. Common stockholders' calculating equity divided by number of shares of common stock outstanding is the formula for
A. earnings per share (EPS).
B. dividends per share (DPS).
C. book value per share (BVPS).
D. market value per share (MVPS).

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand

Difficulty: 1 Basic
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Per-share valuations
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 stockholders
B. the number of shares of stock outstanding
C. the earnings per share (EPS)
D. all of these choices are correct.

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Capital structure basics
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

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand Difficulty: 1 Basic
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions. Topic: Taxes
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 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: 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 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes
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 cost
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 Intermediate Learning Goal: 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 Basic
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: 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

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms 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 Basic Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.

Topic: Investing activities
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. all of these choices are correct.

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand
Difficulty: 2 Intermediate Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows. Topic: Cash flows
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 with 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 Blooms: Understand
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
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 Intermediate
Learning Goal: 02-06 Observe cautions that should be taken when examining financial statements.
Topic: Ethics, governance, and regulation
22. 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 | $=\$ 100,000$ |
| Total current assets | $\$ 700,000$ |
| and current liabilities | $=$ |
| Accrued wages and taxes | $=\$ 10,000$ |
| Accounts payable | $=\$ 300,000$ |
| Notes payable | $=\$ 600,000$ |
| Total current liabilities | $\$ 90,000$ |

So the firm's net working capital was $-\$ 210,000(\$ 700,000-\$ 910,000)$.
23. Jack and Jill Corporation's year-end 2018 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 stockholders' 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 |  |  | Book value |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  | Liabilities and Equity |  |
| Current assets | \$ | 250,000 | Current liabilities | \$ 195,000 |
| Fixed assets |  | 800,000 | Long-term debt | 300,000 |
|  |  |  | Stockholder's equity | 555,000 |
|  |  | Total | \$1,050,000 | Total |
|  |  |  |  | \$1,050,000 |

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance sheet
24. Bullseye, Inc.'s 2018 income statement lists the following income and expenses: EBIT $=\$ 900,000$, interest expense $=\$ 85,000$, and net income $=\$ 570,000$. What are the 2018 taxes reported on the income statement?
A. $\$ 245,000$
B. $\$ 330,000$
C. $\$ 815,000$
D. There is not enough information to calculate 2018 taxes.

Using the setup of an Income Statement in Table 2.2:

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

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income statement
25. 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:

| Change | Before Capital <br> Structure Change | After Capital <br> Structure Change |
| :--- | :---: | :---: |
| EBIT | $\$ 500,000$ | $\$ 500,000$ |
| -Interest $(\$ 2,000,000 \times 0.06)$ | 120,000 | 60,000 |
| -Interest $(\$ 1,000,000 \times 0.06)$ | $\$ 380,000$ | $\$ 440,000$ |
| EBT | 152,000 | 176,000 |
| -Taxes $(40 \%)$ | $\$ 228,000$ | $\$ 264,000$ |
| Net Income | 50,000 | 100,000 |
| Divide \# of Shares | $\$ 4.56$ | $\$ 2.64$ |
| EPS |  |  |

The change in capital structure would dilute the stockholders' EPS by $\$ 1.92$.
26. 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 Capital <br> Change Structure | After Capital <br> Structure Change |
| :--- | ---: | ---: |
| Change | $\$ 5,000,000$ | $\$ 5,000,000$ |
| EBIT | $1,000,000$ |  |
| -Interest $(\$ 20,000,000 \times 0.05)$ |  | 750,000 |
| -Interest $(\$ 15,000,000 \times 0.05)$ | $\$ 4,000,000$ | $\$ 4,250,000$ |
| EBT | $1,600,000$ | $1,700,000$ |
| -Taxes $(40 \%)$ | $\$ 2,400,000$ | $\$ 2,550,000$ |
| Net Income | 70,000 | 170,000 |
| Divide \# of Shares | $\$ 34.29$ | $\$ 15.00$ |
| EPS |  |  |

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

AACSB: Analytical Thinking
Blooms: Apply Difficulty: 1 Basic Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.

Topic: Per-share valuations
27. Barnyard, Inc.'s 2018 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 2018 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:

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

Thus,
Earnings per share $(E P S)=\underline{303,000}=\$ 1.515$ per share 200,000
28.

Eccentricity, Inc. had $\$ 300,000$ in 2018 taxable income. Using the tax schedule from Table 2.3, what are the company's 2018 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 |
| :--- | :---: | :---: |
| $\$ 0-\$ 50,000$ | $\$ 10$ | $15 \%$ |
| $\$ 50,001-\$ 75,000$ | $\$ 7,500$ | $25 \%$ |
| $\$ 75,001-\$ 100,000$ | $\$ 13,750$ | $34 \%$ |
| $\$ 100,001-\$ 335,000$ | $\$ 22,250$ | $39 \%$ |
| $\$ 335,000-\$ 10,000,000$ | $\$ 113,900$ | $34 \%$ |

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

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:

| Average tax rate | $=\underline{\$ 100,250}$ |
| ---: | :--- |
| $\$ 300,000$ |  |
| $=$ | $33.4167 \%$ |

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.

Swimmy, Inc. had \$400,000 in 2018 taxable income. Using the tax schedule from Table 2.3, what are the company's 2018 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 |

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:

Average tax rate

$$
\begin{aligned}
& =\frac{\$ 136,000}{\$ 400,000} \\
& =34 \%
\end{aligned}
$$

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.
30. Scuba, Inc. is concerned about the taxes paid by the company in 2018. 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 rate $=\$ 1,751,000 / \$ 5,150,000=34.00 \%$.
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.
31.

Paige's Properties Inc. reported 2018 net income of $\$ 5$ million and depreciation of $\$ 1,500,000$. The top part Paige's Properties, Inc.'s 2017 and 2018 balance sheets is listed as follows (in millions of dollars).

| Current assets | 2017 | 2018 | Currentliabiles | 2017 | 2018 |
| :---: | :---: | :---: | :--- | :---: | :---: |
| Cash and marketable securities | $\$ 10$ | $\$ 20$ | Accrued wages and taxes | $\$ 5$ | $\$ 11$ |
| Accounts receivable | 20 | 34 | Accounts payable | 25 | 29 |
| Inventory | 10 | 11 | Notes payable | 10 | 25 |
| Total | $\$ 40$ | $\$ 65$ | Total | $\$ 40$ | $\$ 65$ |

What is the 2018 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 <br> Net income <br> Additions (sources of cash): <br> Depreciation | $\$$ | $5,000,000$ |
| :--- | :--- | ---: |
| Increase accrued wages and taxes |  | $6,000,000$ |
| Increase in accounts payable |  | $4,000,000$ |
| Increase in accounts receivable | - | $14,000,000$ |
| Subtraction (uses of cash): |  |  |
| Increase in inventory | - | $1,000,000$ |
| Net cash flow from operating activities: | $\$$ | $1,500,000$ |

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-04 Differentiate between accounting income and cash flows.
Topic: Operating activities
32. In 2018, 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 2018 and $\$ 105,000$ at the end of the year. What was Upper Crust's cash flow from operations for 2018 ?
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 |  | $\$ 415,000$ |  |
| Cash flows from investing activities |  | $=$ | $-250,000$ |
| Cash flows from financing activities | $=$ | $-150,000$ |  |
| Net change in cash and marketable securities | $=$ | $\$ 15,000$ |  |

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-04 Differentiate between accounting income and cash flows.
Topic: Operating activities
33.

In 2018, 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 2018 and $\$ 65,000$ at the end of the year. What was Lower Case's cash flow from operations for 2018?
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 | $=$ | $-\$ 165,000$ |
| :--- | ---: | :---: |
| Cash Flows from Financing Activities | $=$ | $+100,000$ |
| Net Change in Cash and Marketable Securities | $=$ | $-\$ 15,000$ |

34. 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 2017 to 2018. 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 2018, 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:

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

Investment in operating capital for 2008 was:

$$
\begin{aligned}
\text { IOC } & =\Delta \text { Gross fixed assets }+\Delta \text { Net operating working capital } \\
& =\$ 10 \mathrm{~m} .+(\$ 6 \mathrm{~m} .-\$ 4 \mathrm{~m} .)=\$ 12 \mathrm{~m} .
\end{aligned}
$$

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 2018 Crew Cut had cash flows of $\$ 15$ million available to pay its stockholders and debt holders.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
35. 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 2017 to 2018 . 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 2018, 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:

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

Investment in operating capital for 2018 was:

$$
\begin{aligned}
\text { IOC } & =\Delta \text { Gross fixed assets }+\Delta \text { Net operating working capital } \\
& =\$ 70 \mathrm{~m} .+(-\$ 10 \mathrm{~m} .-\$ 6 \mathrm{~m} .)=\$ 54 \mathrm{~m} .
\end{aligned}
$$

Accordingly, Cruise's free cash flow for 2018 was:
FCF $=$ Operating cash flow - Investment in operating capital $=\$ 226 \mathrm{~m} .-\$ 54 \mathrm{~m} .=\$ 172 \mathrm{~m}$.

In other words, in 2018 Cruise had cash flows of $\$ 172$ million available to pay its stockholders and debt holders.
AACSB: Analytical Thinking
Blooms: Apply Difficulty: 1 Basic
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
36. Catering Corp. reported free cash flows for 2018 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 2018 income statement. What was Catering's 2018 EBIT?
A. $\$ 7$ million
B. $\$ 10$ million
C. $\$ 11$ million
D. $\$ 13$ million

Catering's free cash flow for 2018 was:
FCF = Operating cash flow - Investment in operating capital
$\$ 8 \mathrm{~m}$. $=$ Operating cash flow $-\$ 2 \mathrm{~m}$.
So, operating cash flow $=\$ 8 \mathrm{~m} .+\$ 2 \mathrm{~m} .=\$ 10 \mathrm{~m}$.
Catering's operating cash flow was:
OCF $=$ EBIT - Taxes + Depreciation
$\$ 10 \mathrm{~m} .=($ EBIT $-\$ 2 \mathrm{~m} .+\$ 1 \mathrm{~m}$. $)$
So, EBIT $=\$ 10 \mathrm{~m} .+\$ 2 \mathrm{~m} .-\$ 1 \mathrm{~m} .=\$ 11 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
37. TriCycle, Corp. began the year 2018 with $\$ 25$ million in retained earnings. The firm earned net income of $\$ 7$ million in 2018 and paid $\$ 1$ million to its preferred stockholders and $\$ 3$ million to its common stockholders. What is the year-end 2018 balance in retained earnings for TriCycle?
A. $\$ 25$ million
B. $\$ 28$ million
C. $\$ 32$ million
D. $\$ 36$ million

The statement of retained earnings for 2018 is as follows:

| Balance of Retained Earnings, December 31, 2017 | $\$ 25 \mathrm{~m}$ |
| :---: | :---: |
| Plus: Net Income for 2018 | 7 m |
| Less: Cash Dividends Paid |  |
| Preferred Stock | $\$ 1 \mathrm{~m}$ |
| Common Stock | 3 m |
| Total Cash Dividends Paid | 4 m |
| Balance of Retained | Earnings, December 31, 2018 |

38. Night Scapes, Corp. began the year 2018 with $\$ 10$ million in retained earnings. The firm suffered a net loss of $\$ 2$ million in 2018 and yet paid $\$ 2$ million to its preferred stockholders and $\$ 1$ million to its common stockholders. What is the year-end 2018 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 2018 is as follows:

| Balance of Retained Earnings, December 31, 2017 | \$10m |  |
| :---: | :---: | :---: |
| Less: Net Income for 2018 | 2 m |  |
| Less: Cash Dividends Paid |  |  |
| Preferred Stock | \$2m |  |
| Common Stock | 1 m |  |
| Total Cash Dividends Paid | 3 m |  |
| Balance of Retained Earnings, December 31, 2018 | \$5m |  |
| AACSB: Analytical Thinking <br> Blooms: Apply Difficulty: 1 Basic <br> Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide. |  |  |

39. 

Use the following information to find dividends paid to common stockholders during 2018.

| Balance of Retained Earnings, December 31, 2017 | $\$ 52 \mathrm{~m}$ |  |
| :---: | ---: | ---: |
| Plus: Net Income for 2018 |  |  |
| Less: Cash Dividends Paid |  |  |
| Preferred Stock | $\$ 7 \mathrm{~m}$ |  |
| Common Stock | 10 m |  |
| Total Cash Dividends Paid | 17 m |  |
| Balance of Retained Earnings, December 31, 2018 | $\$ 56 \mathrm{~m}$ |  |

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 $=\$ 17 \mathrm{~m}-\$ 7 \mathrm{~m}=$ \$10m.
40. 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

| Cash and marketable Securities $(.2 \times \$ 1)$ | $\$ 0.20$ |
| :---: | ---: |
| Accounts receivable $(.05 \times \$ 1)$ | 0.05 |
| Inventory | .75 |
| Total | $\$ 1.0$ |
| Fixed assets: | $\$ 1.5$ |
| Gross plant and equipment | 0.5 |
| Less: Depreciation | $\$ 1.0$ |
| Net plant and equipment | 1.0 |
| Other long-term assets | $\$ 2.0$ |
| Total | $\$ 3.0$ |
| Total assets |  |

Step 1: Inventory $=\$ 1-\$ 0.20-\$ 0.05=\$ .75$.
Step 2: Total $=\$ 3.0-\$ 1.0=\$ 2.0$.
Step 3: Net plant equipment $=\$ 2.0-\$ 1.0=\$ 1.0$.
Step 4: Depreciation $=\$ 1.5-\$ 1.0=\$ 0.5$.
41. 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 $(.10 \times \$ 6)$ | $\$ 0.6$ |
| Accounts receivable $(.40 \times \$ 6)$ | 2.4 |
| Inventory | 3.0 |
| Total | $\$ 6.0$ |
| Fixed assets: | $\$ 13.0$ |
| Gross plant and equipment | 3.0 |
| Less: Depreciation | $\$ 10.0$ |
| Net plant and equipment | 2.0 |
| Other long-term assets | $\$ 12.0$ |
| Total | $\$ 18.0$ |

Step 1: Inventory $=\$ 6-\$ 0.6-\$ 3.0=\$ 3.0$.
Step 2: Total $=\$ 18-\$ 6=\$ 12.0$.
Step 3: Net plant equipment $=\$ 12-\$ 2=\$ 10.0$.
Step 4: Depreciation $=\$ 13-\$ 10=\$ 3.0$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance sheet
42. 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: | $\$ 1.6$ |  |
| Total debt: | $\$$ | 2 |
| Stockholder's equity: |  |  |
| Preferred stock |  | 0 |
| Common stock and paid-in surplus (2 million shares) |  | 1 |
| Retained earnings |  | 2 |
| Total | $\$$ | 3 |
| $\quad$ Total liabilities and equity | $\$$ | 5 |

Step 1: Total liabilities and equity $=$ Total Assets $=\$ 5$.
Step 2: Total debt $=.4 \times \$ 5=\$ 2$.
Step 3: Long-term debt $=\$ 2-\$ .4=\$ 1.6$.
Step 4: Total $=\$ 5-\$ 2=\$ 3$.
Step 5: Retained earnings $=\$ 3-\$ 1=\$ 2$.
43. 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

| Long-term debt: | $\$$ | 2 |
| :--- | ---: | ---: |
| Total debt: | $\$$ | 3 |
| Stockholder's equity: | $\$$ | 0 |
| Preferred stock | $\$$ |  |
| Common stock and paid-in surplus (2 million shares) | 8 |  |
| Retained earnings | $\$ 12$ |  |
|  | $\$ 15$ |  |
| Total liabilities and equity | $\$ 1$ |  |

Step 1: Total liabilities and equity $=$ Total Assets $=\$ 15$.
Step 2: Total debt $=.2 \times \$ 15 \mathrm{~m}=\$ 3$.
Step 3: Long-term debt $=\$ 3-\$ 1=\$ 2$.
Step 4: Total $=\$ 15-\$ 3=\$ 12$.
Step 5: Retained earnings $=\$ 12-\$ 8=\$ 4$.
44. 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

| Assets | Book <br> value | Market <br> value |
| :--- | :--- | :--- | :--- |
| Current assets | $\$ 27 \mathrm{~m}$. | $\$ \quad 92 \mathrm{~m}$. |


| Fixed assets |  |  | 40 m. |
| :--- | ---: | ---: | ---: |
|  | 50 m. |  |  |
| Total | $\$ 67 \mathrm{~m}$. | $\$ 142 \mathrm{~m}$. |  |

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) $-\$ 15 \mathrm{~m} \Rightarrow$ Current assets (market value) $=\$ 77 \mathrm{~m}+\$ 15 \mathrm{~m}=\$ 92 \mathrm{~m}$.
Step 4: Total assets $($ market value $)=\$ 92 \mathrm{~m}+\$ 50 \mathrm{~m}=\$ 142 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Market and book values
45. 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 | $\$ 10 \mathrm{~m}$. | $\$ 16 \mathrm{~m}$. |
| Fixed assets | 20 m. | 25 m. |
| Total | $\$ 30 \mathrm{~m}$. | $\$ 41 \mathrm{~m}$. |

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 $)=\$ 9 \mathrm{~m}=$ Current assets (market value) $-\$ 7 \mathrm{~m}=>$ Current assets (market value) $=\$ 9 \mathrm{~m}+\$ 7 \mathrm{~m}=\$ 16 \mathrm{~m}$.
Step 4: Total assets $($ market value $)=\$ 16 \mathrm{~m}+\$ 25 \mathrm{~m}=\$ 41 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Market and book values
46. 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 | $\$ 8 \mathrm{~m}$. | $\$ 11 \mathrm{~m}$. |
| Fixed assets | 15 m. | 17 m. |
| Total | $\$ 23 \mathrm{~m}$. | $\$ 28 \mathrm{~m}$. |

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) $=\$ 6 \mathrm{~m}=$ Current assets (market value) $-\$ 5 \mathrm{~m} \Rightarrow$ Current assets (market value) $=\$ 6 \mathrm{~m}+\$ 5 \mathrm{~m}=\$ 11 \mathrm{~m}$.
Step 4: Total assets $($ market value $)=\$ 11 \mathrm{~m}+\$ 17 \mathrm{~m}=\$ 28 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Market and book values
47. 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

|  | AllDebt | AllEquity |
| :--- | :---: | :---: |
| Operating income | $\$ 0.6 \mathrm{~m}$. | $\$ 0.6 \mathrm{~m}$. |
| Less: Interest | 0.1 m. | 0 m. |
| Taxable income | 0.5 m. | 0.6 m. |
| Less: Taxes $(30 \%)$ | 0.15 m. | 0.18 m. |
| Net income | $\$ 0.35 \mathrm{~m}$. | $\$ 0.42 \mathrm{~m}$. |
| Income available for asset funders | $\$ 0.45 \mathrm{~m}$. | $\$ 0.42 \mathrm{~m}$. |

(= operating income - taxes)
Return on assets funders' investment $\$ 0.45 \mathrm{~m} / \$ 1.2 \mathrm{~m}=37.50 \%$.
$\$ 0.42 \mathrm{~m} / \$ 1.2 \mathrm{~m}=35.00 \%$.
Less: Interest $=\$ 1 \mathrm{~m} . \times .1=\$ .1 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Profitability ratios
48. 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

|  | AllDebt | AllEquity |
| :--- | :---: | :---: |
| Operating income | $\$ 3 \mathrm{~m}$. | $\$ 3 \mathrm{~m}$. |
| Less: Interest | 0.25 m. | 0 m. |
| Taxable income | 2.75 m. | 3 m. |
| Less: Taxes $(40 \%)$ | 1.1 m. | 1.2 m. |
| Net income | $\$ 1.65 \mathrm{~m}$. | $\$ 1.8 \mathrm{~m}$. |
| Income available for asset funders | $\$ 1.9 \mathrm{~m}$. | $\$ 1.8 \mathrm{~m}$. |
| $(=$ operating income - taxes $)$ |  |  |

Return on assets funders' investment $\$ 1.9 \mathrm{~m} / \$ 6 \mathrm{~m}=31.67 \%$.
$\$ 1.8 \mathrm{~m} / \$ 6 \mathrm{~m}=30.00 \%$.
Interest: $=\$ 5 \mathrm{~m} . \times .05=\$ .25 \mathrm{~m}$.

Difficulty: 2 Intermediate
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Profitability ratios
49. 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

|  |  |  |  |
| :--- | ---: | ---: | ---: |
|  | AllDebt |  | AllEquity |
| Less: Interest | $\$ 0.4 \mathrm{~m}$. |  | $\$ 0.4 \mathrm{~m}$. |
| Taxable income | 0.03 m. |  | 0 m. |
| Less: Taxes $(30 \%)$ | 0.37 m. | 0.4 m. |  |
| Net income $\$$ | 0.111 m. | 0.12 m. |  |
| Income available for asset funders | $\$ 0.259 \mathrm{~m}$. | $\$ 0.28 \mathrm{~m}$. |  |
| $(=$ operating income -taxes) | 0.289 m. | $\$ 0.28 \mathrm{~m}$. |  |
|  |  |  |  |

Return on assets funders' investment $\$ 0.289 \mathrm{~m} / \$ 0.8 \mathrm{~m}=36.125 \%$. $\$ 0.28 \mathrm{~m} / \$ 0.8 \mathrm{~m}=35.00 \%$.
Interest $=\$ .6 \mathrm{~m} . \times .05=\$ .03 \mathrm{~m}$.
50. 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) | $\$ 25,500,000$ |
| :--- | ---: |
| Less: Cost of goods sold | $10,250,000$ |
| Gross profits | $\$ 15,250,000$ |
| Less: Depreciation | $\$ 12,100,000$ |
| Earnings before interest and taxes (EBIT) | $\$ 3,150,000$ |
| Less: Interest | $\$, 000,000$ |
| Earnings before taxes (EBT) | $1,150,000$ |
| Less: Taxes | $\$$ |
| Net income | 805,000 |
| Less: Common and preferred stock dividends | $\$$ |
| Addition to retained earnings | $\$$ |
|  | 300,000 |

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 $\Rightarrow$ 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.
51. 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. $\$ 1,600,000$

| Less: Cost of goods sold | $2,100,000$ |  |
| :--- | ---: | ---: |
| Gross profits | $\$ 3,100,000$ |  |
| Less: Depreciation | $\$$ | 900,000 |
| Earnings before interest and taxes (EBIT) | $\$ 2,200,000$ |  |
| Less: Interest200,000 | $\$ 2,000,000$ |  |
| Earnings before taxes (EBT) | $\$ 1,400,000$ |  |
| Less: Taxes | $\$$ | 400,000 |
| Net income | $\$ 1,000,000$ |  |

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. 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) | $\$$ | $2,500,000$ |
| :--- | ---: | ---: |
| Less: Cost of goods sold |  | $1,300,000$ |
| Gross profits | $\$$ | $1,200,000$ |
| Less: Depreciation | $\$$ | 600,000 |
| Earnings before interest and taxes (EBIT) | $\$$ | 600,000 |
| Less: Interest | $\$ 0,000$ |  |
| Earnings before taxes (EBT) | 550,000 |  |
| Less: Taxes | $\$$ | 330,000 |
| Net income | $\$$ | 300,000 |
| Less: Common and preferred stock dividends | $\$$ | 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. 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. $\mathbf{\$ 2 0 0}, 000$, and $\mathbf{\$ 2 0}, 000$, respectively
D. $\$ 200,000$, and $\$ 36,500$, respectively

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

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 $\Rightarrow$ EBT $=$ Net income $/(1-$ tax rate $)=\$ 38,500 /(1-0.3)=\$ 55,000$.
Step 3: Gross profits $=$ Net sales - Cost of goods sold $\Rightarrow$ Net Sales - Gross Profit $=$ Cost of Goods Sold \$300,000 $-100,000=\$ 200,000$.
Step 4: Gross profits - Depreciation $=$ EBIT $=\$ 100,000-\$ 25,000=\$ 75,000$.
Step 5: EBIT - Interest $=$ EBT $=>$ Interest $=$ EBIT - EBT $=\$ 75,000-\$ 55,000=\$ 20,000$.
54. 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

| Less: Cost of goods sold |  | 50,000 |
| :--- | ---: | ---: |
| Gross profits | $\$ 100,000$ |  |
| Less: Depreciation | $\$$ | 50,000 |
| Earnings before interest and taxes (EBIT) | $\$$ | 50,000 |
| Less: Interest | 10,000 |  |
| Earnings before taxes (EBT) | $\$$ | 40,000 |
| Less: Taxes |  |  |
| Net income | $\$ 8,000$ |  |
| Less: Common and preferred stock dividends | $\$$ | 8,000 |
| Addition to retained earnings | $\$$ | 20,000 |

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 $=\$ 100,000-\$ 50,000=\$ 50,000$.
Step 5: EBIT - Interest $=$ EBT $=>$ Interest $=$ EBIT - EBT $=\$ 50,000-\$ 40,000=\$ 10,000$.
55. 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

| Less: Cost of goods sold |  | 600,000 |
| :--- | ---: | ---: |
| Gross profits | $\$$ | 400,000 |
| Less: Depreciation | $\$$ | 50,000 |
| Earnings before interest and taxes (EBIT) | $\$$ | 350,000 |
| Less: Interest |  | 100,000 |
| Earnings before taxes (EBT) | $\$$ | 250,000 |
| Less: Taxes | $\$$ | 150,000 |
| Net income | $\$$ | 90,000 |
| Less: Common and preferred stock dividends | $\$$ | 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 $=\$ 400,000-\$ 50,000=\$ 350,000$.
Step 5: EBIT - Interest $=$ EBT $=>$ Interest $=$ EBIT - EBT $=\$ 350,000-\$ 250,000=\$ 100,000$.
56.

The Carolina Corporation had a 2018 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.

AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes

The Ohio Corporation had a 2018 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.

AACSB: Analytical Thinking
Accessibility: Keyboard Navigation Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes
58.

The Sasnak Corporation had a 2018 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.

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes

The AOK Corporation had a 2018 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.

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes
60. 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: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes
61. 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: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes
62. 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 $\$ 15 \mathrm{~m}$.

Additions (sources of cash):
Depreciation
6 m .
Increase in accrued wages and taxes
1 m .
Increase in accounts payable
1 m .
Subtractions (uses of cash):
Increase in accounts receivable
-2 m .
Increase in inventory
-4 m .
Net cash flow from operating activities:
\$17m.

Increase in accounts receivable $=\$ 17 \mathrm{~m} .-\$ 15 \mathrm{~m} .-\$ 6 \mathrm{~m} .-\$ 1 \mathrm{~m} .-\$ 1 \mathrm{~m} .+\$ 4 \mathrm{~m} .=\$-2 \mathrm{~m}$.
Thus, end of year balance of accounts receivable $=\$ 5 \mathrm{~m}+\$ 2 \mathrm{~m}=\$ 7 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Operating activities
63. 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 | $\$ 150 \mathrm{~m}$. |
| :--- | ---: |
| Additions (sources of cash): | 85 m. |
| Depreciation | 15 m. |
| Increase in accrued wages and taxes | 10 m. |
| Increase in accounts payable |  |
| Subtractions (uses of cash): | -20 m. |
| Increase in accounts receivable | -14 m. |
| Increase in inventory | $\$ 226 \mathrm{~m}$. |

Increase in accounts receivable $=\$ 226 \mathrm{~m} .-\$ 150 \mathrm{~m} .-\$ 85 \mathrm{~m} .-\$ 15 \mathrm{~m} .-\$ 10 \mathrm{~m} .+\$ 14 \mathrm{~m} .=\$-20 \mathrm{~m}$.
Thus, end of year balance of accounts receivable $=\$ 45 \mathrm{~m}+\$ 20 \mathrm{~m}=\$ 65 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Operating activities
64. 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 | \$15m. |
| :---: | :---: |
| Additions (sources of cash): |  |
| Depreciation | 6 m . |
| Decrease in accounts receivable | 2 m . |
| Decrease in inventory | 4 m . |
| Subtractions (uses of cash): |  |
| Decrease in accrued wages and taxes | -1m. |
| Decrease in accounts payable | -1 m . |
| Net cash flow from operating activities: | \$ 25m. |

Decrease in accounts receivable $=\$ 25 \mathrm{~m} .-\$ 15 \mathrm{~m} .-\$ 6 \mathrm{~m} .-\$ 4 \mathrm{~m} .+\$ 1 \mathrm{~m} .-\$ 1 \mathrm{~m} .=\$ 2 \mathrm{~m}$.
Thus, end of year balance of accounts receivable $=\$ 5 \mathrm{~m}-\$ 2 \mathrm{~m}=\$ 3 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Operating activities
65. 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:

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

Increase in long-term debt $=\$ 20 \mathrm{~m} .+\$ 5 \mathrm{~m} .-\$ 2 \mathrm{~m} .-\$ 3 \mathrm{~m} .=\$ 20 \mathrm{~m}$.
Thus, beginning of year balance for long-term debt $=\$ 45 \mathrm{~m}-\$ 20 \mathrm{~m}=\$ 25 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Financing activities
66. 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 m. |
| Increase in common and preferred stock | 50 m. |
| Subtractions: | -15 m. |
| Pay stock dividends | $\$ 105 \mathrm{~m}$. |

Increase in long-term debt $=\$ 105 \mathrm{~m} .+\$ 15 \mathrm{~m} .-\$ 40 \mathrm{~m} .-\$ 50 \mathrm{~m} .=\$ 30 \mathrm{~m}$.
Thus, beginning of year balance for long-term debt $=\$ 50 \mathrm{~m}-\$ 30 \mathrm{~m}=\$ 20 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Financing activities
67. 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

Cash Flows from Financing Activities
Additions:

| Increase in long-term debt | 30m. |
| :---: | :---: |
| Increase in common and preferred stock | 50 m . |
| Subtractions: |  |
| Decrease in notes payable | -40m. |
| Pay stock dividends | -15m. |
| Net cash flow from financing activities: | \$25m. |

Increase in long-term debt $=\$ 25 \mathrm{~m} .+\$ 15 \mathrm{~m} .+\$ 40 \mathrm{~m} .-\$ 50 \mathrm{~m} .=\$ 30 \mathrm{~m}$.
Thus, beginning of year balance for long-term debt $=\$ 40 \mathrm{~m}-\$ 30 \mathrm{~m}=\$ 10 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Financing activities
68. 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 $=\$ 320 \mathrm{~m} \times(0.3)=\$ 96 \mathrm{~m} \Rightarrow$ Pete's operating cash flow was: OCF $=$ EBIT - Taxes + Depreciation $=(\$ 500 \mathrm{~m}$ $-\$ 96 m+\$ 250 m)=\$ 654 m$.
Pete's free cash flow for 2010 was: FCF = Operating cash flow - Investment in operating capital.
$\$ 630 \mathrm{~m}=\$ 654 \mathrm{~m}-$ Investment in operating capital $=>$ Investment in operating capital $=\$ 654 \mathrm{~m}-\$ 630 \mathrm{~m}=\$ 24 \mathrm{~m}$.
Accordingly, investment in operating capital for 2010 was: IOC $=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital $\$ 24 m=(\$ 2,000 m-\$ 1,600 m)+($ Ending net operating working capital $-\$ 640 m)=>$ Ending net operating working capital $=\$ 24 \mathrm{~m}-(\$ 2,000 \mathrm{~m}-\$ 1,600 \mathrm{~m})+\$ 640 \mathrm{~m}=\$ 264 \mathrm{~m}$.

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
69. The 2018 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.
$=(\$ 5 \mathrm{~m}-\$ 1.2 \mathrm{~m}+\$ 2 \mathrm{~m})=\$ 5.8 \mathrm{~m}$.
Lou's free cash flow for 2018 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 2018 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 $-\$ 6 \mathrm{~m})$.
$\Rightarrow$ Ending net operating working capital $=\$ 1.8 \mathrm{~m}-(\$ 20 \mathrm{~m}-\$ 16 \mathrm{~m})+\$ 6 \mathrm{~m}=\$ 3.8 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
70. The 2018 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.
$=(\$ 25 \mathrm{~m}-\$ 4.5 \mathrm{~m}+\$ 10 \mathrm{~m})=\$ 30.5 \mathrm{~m}$.
Paige's free cash flow for 2018 was:
FCF = Operating cash flow - Investment in operating
capital. $\$ 20 \mathrm{~m}=\$ 30.5 \mathrm{~m}$ - Investment in operating capital.
$\Rightarrow$ Investment in operating capital $=\$ 30.5 \mathrm{~m}-\$ 20 \mathrm{~m}=\$ 10.5 \mathrm{~m}$.
Accordingly, investment in operating capital for 2018 was: $\mathrm{IOC}=$
$\Delta$ Gross fixed assets $+\Delta$ Net operating working capital.
$\$ 10.5 m=(\$ 100 m-\$ 80 m)+($ Ending net operating working capital $-\$ 30 m)$.
$\Rightarrow$ Ending net operating working capital $=\$ 10.5 \mathrm{~m}-(\$ 100 \mathrm{~m}-\$ 80 \mathrm{~m})+30 \mathrm{~m}=\$ 20.5 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
71. The 2018 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 2018 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 2018 was:
IOC $=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital.
$-\$ 245 m=(\$ 510 m-$ Beginning of year gross fixed assets $)+\$ 94 m$.
$\Rightarrow$ Beginning of year gross fixed assets $=510 \mathrm{~m}-(-\$ 245 \mathrm{~m})+\$ 94 \mathrm{~m}=\$ 849 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
72. The 2018 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
$=(\$ 80 \mathrm{~m}-\$ 24 \mathrm{~m}+\$ 20 \mathrm{~m})=\$ 76 \mathrm{~m}$
John's free cash flow for 2018 was:
FCF = Operating cash flow - Investment in operating capital
$\$ 41 \mathrm{~m}=\$ 76 \mathrm{~m}$ - Investment in operating capital
$\Rightarrow$ Investment in operating capital $=\$ 76 \mathrm{~m}-\$ 41 \mathrm{~m}=\$ 35 \mathrm{~m}$
Accordingly, investment in operating capital for 2018 was: IOC
$=\Delta$ Gross fixed assets $+\Delta$ Net operating working capital $\$ 35 \mathrm{~m}$
$=(\$ 102 \mathrm{~m}-$ Beginning of year gross fixed assets $)+\$ 18 \mathrm{~m}$
$\Rightarrow$ Beginning of year gross fixed assets $=102 m-\$ 35 m+\$ 18 m=\$ 85 m$
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
73. 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 stockholders 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)
$\left.\begin{array}{crr}\hline \text { Balance of retained earnings, December 31, } 2012 & & \begin{array}{r}\$ 100 \mathrm{~m} \\ \text { Plus: Net income for 2013 }\end{array} \\ \text { Less: Cash dividends paid } & & \\ \text { Preferred stock } & \$ 9 \mathrm{~m}\end{array}\right)$

Net income for $2013=\$ 128 \mathrm{~m}+31 \mathrm{~m}-100 \mathrm{~m}=59 \mathrm{~m}$.

Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Statement of retained earnings
74. 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 stockholders and $\$ 6$ million to common stockholders. 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, 2018 (in millions of dollars)

| Balance of retained earnings, December 31, 2017 | \$25m |
| :---: | :---: |
| Plus: Net income for 2018 | 15 m |
| Less: Cash dividends paid |  |
| Preferred stock | \$2m |
| Common stock | 6 m |
| Total cash dividends paid | 8 m |
| Balance of retained earnings, December 31, 2018 | \$32m |

Net income for $2018=\$ 32 m+8 m-25 m=15 m$.
75. 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 stockholders and $\$ 15$ million to common stockholders. 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, 2018 (in millions of dollars)

| Balance of retained earnings, December 31, 2017 |  |  |
| :---: | ---: | ---: |
| Plus: Net income for 2018 |  |  |
| Less: Cash dividends paid |  |  |
| Preferred stock |  |  |
| Common stock |  | $\$ 100 \mathrm{~m}$ <br> 45 m |
| Total cash dividends paid | 2 m <br> 15 m |  |
| Balance of retained earnings, December 31, 2018 |  | 17 m |

76. 

The following is the 2018 income statement for Lamps, Inc.

| Lamps, Inc. <br> Income Statement for Year Ending December 31, 2018 (in millions of dollars) |  |  |
| :---: | :---: | :---: |
| Net sales | \$ | 100 |
| Less: Cost of goods sold |  | 80 |
| Gross profits |  | 20 |
| Less: Depreciation |  | 5 |
| Earnings before interest and taxes (EBIT) |  | 15 |
| Less: Interest |  | 2 |
| Earnings before taxes (EBT) |  | 13 |
| Less: Taxes |  | 5 |
| Net income | \$ | 8 |

The CEO of Lamps wants the company to earn a net income of $\$ 12$ million in 2018. 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, 2018
(in millions of dollars)

| Net sales | (in millions of dollars) | $\$ 116$ |
| :--- | ---: | ---: |
|  |  |  |
| Less: Cost of goods sold | 87 |  |
| Gross profits | 29 |  |
| Less: Depreciation | 5 |  |
| Earnings before interest and taxes (EBIT) | 24 |  |
| Less: Interest | 2 |  |
| Earnings before taxes (EBT) | 20 |  |
| Less: Taxes | $\$ 12$ |  |
| Net income |  |  |

Step 1: EBT $(1-\mathrm{t})=$ Net income $=\$ 12 \mathrm{~m}=$ EBT $(1-0.4) \Rightarrow$ EBT $=\$ 12 \mathrm{~m} /(1-0.4)=\$ 20 \mathrm{~m}$.
Step 2: EBIT $=$ EBT + Interest $=\$ 20 \mathrm{~m}+\$ 4 \mathrm{~m}=\$ 24 \mathrm{~m}$.
Step 3: Gross profits $=$ EBIT + Depreciation $=\$ 24 \mathrm{~m}+\$ 5 \mathrm{~m}=\$ 29 \mathrm{~m}$.
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 $=\$ 116 \mathrm{~m}-\$ 29=\$ 87 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 3 Advanced
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income statement
77.

You have been given the following information for Halle's Holiday Store Corp. for the year 2017: 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 2018, 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 2017, 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 2018 ?
A. $\$ 2,000,000$
B. $\$ 5,325,000$
C. $\$ 8,447,500$
D. $\$ 10,304,643$

Income Statement for Year Ending December 31, 2017
(in millions of dollars)

| Net sales (all credits) | $\$ 50,000,000$ |  |
| :--- | ---: | ---: |
| Less: Cost of goods sold | $35,000,000$ |  |
| Gross profits | $15,000,000$ |  |
| Less: Depreciation | $4,857,143$ |  |
| $\quad$ Earnings before interest and taxes (EBIT) | $10,142,857$ |  |
| Less: Interest | $3,000,000$ |  |
| Earnings before taxes (EBT) | $7,142,857$ |  |
| Less: Taxes |  |  |
| Net income | $\$ 5,000,000$ |  |
| Less: Preferred and common stock dividends | $\$ 3,000,000$ |  |
| Addition to retained earnings | $\$ 2,000,000$ |  |

Depreciation $=\$ 15,000,000-\$ 10,142,857=\$ 4,857,143$.
Earnings before interest and taxes $($ EBIT $)=\$ 7,142,857+\$ 3,000,000=\$ 10,142,857$.
Earnings before taxes $(\mathrm{EBT})=\$ 5,000,000 /(1-0.30)=\$ 7,142,857$.
78. Martha's Moving Van 4U, Inc. had free cash flow during 2018 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 2018?
A. $\$ 5$ million
B. $\$ 15$ million
C. $\$ 35$ million
D. $\$ 45$ million

Martha's operating cash flow for 2018 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
$\$ 25 \mathrm{~m}=(\$ 40 \mathrm{~m}-\$ 30 \mathrm{~m})+\Delta \mathrm{Net}$ operating working capital
$\Rightarrow \Delta$ Net operating working capital $=\$ 25 \mathrm{~m}-(\$ 40 \mathrm{~m}-\$ 30 \mathrm{~m})=\$ 15 \mathrm{~m}$
$\Delta$ Net operating working capital $=\$ 15 \mathrm{~m}=\Delta$ Current assets $-\Delta$ Current
liabilities $\$ 15 m=(\$ 130 m-\$ 110 m)-\Delta$ Current liabilities
$\Rightarrow \Delta$ Current liabilities $=(\$ 130 m-\$ 110 m)-\$ 15 m=\$ 5 m$
$\Rightarrow 2011$ 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 $+\$ 35 \mathrm{~m}$
$\Rightarrow$ Accounts payable $=\$ 908 m-\$ 20 m-\$ 35 m=\$ 35 m$

| Martha's Moving Van 4U, Inc. <br> Balance Sheet as of December 31, 2017 and 2018 (in millions of dollars) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets | 2017 |  | 2018 | Liabilities and Equity | 2017 | 2018 |
| Current assets | Current liabilities |  |  |  |  |  |
| Cash and marketable | \$ 10 |  |  | Accrued wages and taxes | \$ 10 | \$20 |
| securities | \$ 10 |  |  | Accrued wages and taxes | \$ 10 | \$20 |
| Accounts receivable | 20 |  | 25 | Accounts payable | 40 | 35 |
| Inventory | 80 |  | 90 | Notes payable | 30 | 35 |
| Total | \$ 110 | \$ | 130 | Total | \$ 85 | \$95 |
| Fixed assets: |  |  |  | Long-term debt: | \$ 20 | \$25 |
| Gross plant and equipment | \$ 30 | \$ |  | stocknoiders equity: |  |  |
| Less: Depreciation | 10 |  | 12 | Preferred stock ( 5 m shares) |  | \$5 |
| Net plant and equipment | \$ 20 | \$ |  | Common stock and paid-in-surplus (20m shares) | 10 | 10 |
| Other long-term assets | 30 |  | 30 | Retained earnings | 40 | 58 |
| Total | \$ 50 | \$ |  | Total | \$ 55 | \$73 |
| Totalassets | \$160 |  | 188 | Total liahilities and enuitv | \$160 | \$188 |

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 3 Advanced
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows. Topic: Free cash flow
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: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 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. $\$ 500,000$
$(0.350+0.325)-(0.145+0.185)=0.345 m$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance sheet
81. Reed's Birdie Shot, Inc.'s 2018 income statement lists the following income and expenses: EBIT $=\$ 550,000$, interest expense $=\$ 43,000$, and net income $=\$ 300,000$. Calculate the 2018 taxes reported on the income statement.
A. $\$ 85,000$
B. $\$ 107,000$
C. $\$ 309,000$
D. $\$ 207,000$
$(0.550 \mathrm{~m}-0.043 \mathrm{~m})-0.3 \mathrm{~m}=0.207 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income statement
82. Reed's Birdie Shot, Inc.'s 2018 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 2018 earnings per share.
A. $\$ 3.49$
B. $\$ 2.29$
C. $\$ 3.14$
D. $\$ 2.79$
$(0.555 \mathrm{~m}-0.178 \mathrm{~m}-0.148 \mathrm{~m}) / 0.1 \mathrm{~m}=\$ 2.29$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Per-share valuations
83. Oakdale Fashions Inc. had $\$ 255,000$ in 2018 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. $28.20 \%$
$82,100 / 255,000=32.20 \%$.
AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Apply Difficulty: 1 Basic
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions. Topic: Taxes
84. Hunt Taxidermy, Inc. is concerned about the taxes paid by the company in 2018. 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: Analytical Thinking Accessibility: Keyboard Navigation

Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Taxes
85.

Ramakrishnan Inc. reported 2018 net income of $\$ 20$ million and depreciation of $\$ 1,500,000$. The top part of Ramakrishnan, Inc.'s
2017 and 2018 balance sheets is listed as follows (in millions of dollars). 2017 and 2018 balance sheets is listed as follows (in millions of dollars).

| Assets | 2017 | 2018 | Liabilities \& Eq | 2017 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Current assets | Current liabilities |  |  |  |  |
| Cash and marketable securities | \$ 15 | \$ 20 | Accrued wages and taxes | \$ 18 | \$20 |
| Accounts receivable | 75 | 84 | Accounts payable | 45 | 50 |
| Inventory | 110 | 121 | Notes payable | 40 | 45 |
| Total | \$200 | \$ 225 | Total | \$103 | \$115 |

Calculate the 2018 net cash flow from operating activities for Ramakrishnan, Inc.
A. $\$ 12,500,000$
B. $\$ 10,500,000$
C. $\$ 8,500,000$
D. $\$ 7,100,000$
$20+(1.5+2+5)-(9+11)=\$ 8.5 m$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-04 Differentiate between accounting income and cash flows.
Topic: Operating activities
86. In 2018, 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 2018 and $\$ 1,025,000$ at the end of the year. Calculate Usher Sports Shop's cash flow from operations for 2018.
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: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-04 Differentiate between accounting income and cash flows.
Topic: Operating activities
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. $\mathrm{OCF}=\$ 42,000,000 ; \mathrm{IOC}=\$ 37,000,000 ; \mathrm{FCF}=\$ 5,000,000$
B. $\mathrm{OCF}=\$ 47,000,000 ; \mathrm{IOC}=\$ 37,000,000 ; \mathrm{FCF}=\$ 10,000,000$
C. $\mathrm{OCF}=\$ 42,000,000 ; \mathrm{IOC}=\$ 46,000,000 ; \mathrm{FCF}=-\$ 4,000,000$
D. $\mathrm{OCF}=\$ 47,000,000 ; \mathrm{IOC}=\$ 46,000,000 ; \mathrm{FCF}=\$ 1,000,000$

OCF $=$ EBIT - Taxes + Depreciation $=(\$ 52 \mathrm{~m}-\$ 10 \mathrm{~m}+\$ 5 \mathrm{~m})=\$ 47 \mathrm{~m}$ Investment in operating capital: $\Delta$ Gross fixed assets $+\Delta$ Net operating working capital $=\$ 38 m+(\$ 20 m-\$ 12 m)=\$ 46 m$. Accordingly, Fields and Struthers' free cash flow for 2013 was: $\mathrm{FCF}=$ Operating cash flow - Investment in operating capital $=\$ 47 \mathrm{~m}-\$ 46 \mathrm{~m}=\$ 1 \mathrm{~m}$.

AACSB: Analytical Thinking
Blooms: Apply Difficulty: 1 Basic
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows. Topic: Free cash flow
88. Tater and Pepper Corp. reported free cash flows for 2018 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 2018 income statement. Calculate Tater and Pepper's 2018 EBIT.
A. $\$ 49,000,000$
B. $\$ 42,000,000$
C. $\$ 39,000,000$
D. $\$ 47,000,000$
$\mathrm{FCF}=$ Operating cash flow - Investment in operating capital; $\$ 20 \mathrm{~m}=\mathrm{X}-\$ 15 \mathrm{~m} ; \mathrm{X}=\$ 35 \mathrm{~m} \mathrm{OCF}=\mathrm{EBIT}-$ Taxes

+ Depreciation; $\$ 35 \mathrm{~m}=($ EBIT $-\$ 12 \mathrm{~m}+\$ 8 \mathrm{~m}) ;$ EBIT $=\$ 39 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply Difficulty: 1 Basic
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows. Topic: Free cash flow

89. Mr. Husker's Tuxedos, Corp. began the year 2018 with $\$ 205$ million in retained earnings. The firm earned net income of $\$ 30$ million in 2018 and paid $\$ 5$ million to its preferred stockholders and $\$ 12$ million to its common stockholders. What is the year-end 2018 balance in retained earnings for Mr. Husker's Tuxedos?
A. $\$ 193,000,000$
B. $\$ 200,000,000$
C. $\$ 213,000,000$
D. $\$ 218,000,000$
$\$ 205 m+\$ 30 m-\$ 5 m-\$ 12 m=\$ 218 m$.
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

Step 1: Find Inventory: $C A=5=$ Cash $+A / R+\operatorname{Inv}=0.12 \times 5+0.40 \times 5+\operatorname{Inv} ; \Rightarrow \operatorname{Inv}=\$ 2.4 \mathrm{~m}$;
Step 2: Find Depreciation Expense: TA $=$ CA + FA - Accumulated Depreciation.; $17=5+(12+1)$
Accumulated Depreciation; => Accumulated Depreciation $=\$ 1 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Balance sheet
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: TL $=C L+$ 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: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 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: $\$ 32 \mathrm{~m}$; Market Value: $\$ 32.75 \mathrm{~m}$
D. Book Value: $\$ 28 \mathrm{~m}$; Market Value: $\$ 42.25 \mathrm{~m}$

Step 1: Find CA (book value): $=C A-C L=N W C ; ~=>C A(b o o k ~ v a l u e) ~=6.5 \mathrm{~m}+5.5 \mathrm{~m}=\$ 12 \mathrm{~m}$.
Step 2: Find TA (book value): TA $=$ Net FA $+C A=\$ 16 \mathrm{~m}+\$ 12 \mathrm{~m}=\$ 28 \mathrm{~m}$.
Step 3: Find CA (market value): NWC (market) $+C L=\$ 10.25+\$ 5.5 \mathrm{~m}=\$ 15.75 \mathrm{~m}$.
Step 4: Find TA (market value): Net FA $+C A=\$ 17 \mathrm{~m}+\$ 15.75 \mathrm{~m}=\$ 32.75 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Market and book values
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: NI $=$ EBT $(1-$ tax rate $) \Rightarrow \mathrm{EBT}=\mathrm{NI} /(1-$ 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 $\Rightarrow$ Depreciation $=\$ 9.5 \mathrm{~m}-\$ 8.29 \mathrm{~m}=\$ 1.21 \mathrm{~m}$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide. Topic: Income statement
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; $\Rightarrow>$ change in long-term debt $=\$ 9=$ Ending Bal - Change in longterm debt; => Beg balance of long-term debt $=\$ 35$.

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Financing activities
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: $\$ 103=(\$ 1,803-\$ 1,500)+($ Ending net op. working capital \$500); Ending net op. working capital $=\$ 300$

AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
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: Analytical Thinking
Blooms: Apply
Difficulty: 3 Advanced
Learning Goal: 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 these choices are correct.

AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Depreciation methods
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: Analytical Thinking Accessibility: Keyboard Navigation

Blooms: Analyze
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms 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: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Analyze Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Sources and uses of cash
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: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Basic
Learning Goal: 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: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows. Topic: Operating activities
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: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Financing activities
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.

AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.

Topic: Free cash flow
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 options.

AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms 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: Analytical Thinking Accessibility: Keyboard Navigation
> Blooms: Apply
> Difficulty: 2 Intermediate
> Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows. Topic: Operating cash flow
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

AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide. Topic: Capital structure
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. $\$ 144.50$
$(\$ 140+\$ 16.50)-\$ 12-\$ 40=\$ 104.50$
AACSB: Analytical Thinking Accessibility: Keyboard Navigation

Blooms: Apply
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: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Apply Difficulty: 2 Intermediate Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.

Topic: Operating cash flow
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 choices are correct.
AACSB: Analytical Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Intermediate
Learning Goal: 02-06 Observe cautions that should be taken when examining financial statements.
Topic: 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 choices are correct.

AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 2 Intermediate
Learning Goal: 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 2017. During 2018, 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 2018 ?
A. $\$ 75$
B. $\$ 140$
C. $\$ 225$
D. $-\$ 25$
$100+315-40-750+450=\$ 75$.
AACSB: Analytical Thinking Accessibility: Keyboard Navigation Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-03 Explain how taxes influence corporate managers and investors decisions.
Topic: Statement of cash flows
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 $\mathrm{NI}=195-152.75$ $=42.25$.
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. $\$ 1,296.51$
$150 /(1-0.35)=\mathrm{EBT}=230.77 ; \mathrm{EBT}+\mathrm{Int} \mathrm{Exp}=\mathrm{EBIT}=325.77 ; \mathrm{EBIT} /(1-0.71)=$ Sales $=1,123.34$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 3 Advanced
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Income statement
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. $-\$ 55$
$[300-(300 \times 0.4)+40]-265=\mathrm{FCF}=-\$ 45$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms 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
$800 m+\{1.92 \times 100 m\}-\{0.75 \times 100 m\}=\$ 917 m$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 3 Advanced
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Statement of retained earnings
116. For which of the following would one expect the book value of the asset to differ widely from its market value?
A. accounts receivable
B. accounts payable
C. notes payable
D. equity

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Understand Difficulty: 1 Basic
Learning Goal: 02-02 Differentiate between book (or accounting) value and market value.
Topic: Market and book values
117. Which of these is the term for the ease of conversion of an asset into cash at a fair value?
A. liquidity
B. fair Market Value (FMV)
C. book Value
D. current Asset

AACSB: Reflective Thinking Accessibility: Keyboard Navigation Blooms: Remember Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Financial statements
118. Epic, Inc.'s 2018 income statement lists the following income and expenses: EBIT $=\$ 1,000,000$, interest expense $=$ $\$ 75,000$, and taxes $=\$ 277,500$. Epic has no preferred stock outstanding and 100,000 shares of common stock outstanding. What are its 2018 earnings per share?
A. $\$ 10.00$
B. $\$ 9.25$
C. $\$ 7.225$
D. $\$ 6.475$

Using the setup of an Income Statement in Table 2.2:

|  |  |  |
| :--- | ---: | ---: |
| EBIT | $\$$ | $\$ 1,000,000$ |
| Interest expense | - | 75,000 |
| EBT |  | 925,000 |
| Taxes | - | 277,500 |
| Net income |  | 647,500 |

Thus,
Earnings per share $(\mathrm{EFS})=\$ 647,500 / 100,000=\$ 6.475$ per share.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Per-share valuations
119. Downtown Development, Inc.'s 2018 income statement lists the following income and expenses: EBIT = \$700,000, interest expense $=\$ 100,000$, and taxes $=\$ 168,000$. Downtown has no preferred stock outstanding and 50,000 shares of common stock outstanding. What are its 2018 earnings per share?
A. $\$ 14.00$
B. $\$ 12.00$
C. $\$ 10.64$
D. $\$ 8.64$

Using the setup of an Income Statement in Table 2.2:

|  |  |
| :--- | ---: |
| EBIT | $\$ 700,000$ |
| Interest expense | $-100,000$ |
| EBT | 600,000 |
| Taxes | $-168,000$ |
| Net income | 432,000 |

Thus,
Earnings per share $(\mathrm{EFS})=\$ 647,500 / 100,000=\$ 6.475$ per share.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Per-share valuations
120.

You are evaluating the balance sheet for Epic Corporation. From the balance sheet you find the following balances:
cash and marketable securities $=\$ 500,000$, accounts receivable $=\$ 200,000$, inventory $=\$ 100,000$, accrued wages and taxes $=\$ 50,000$, accounts payable $=\$ 60,000$, and notes payable $=\$ 200,000$. Calculate Epic's net working capital.
A. $\$ 490,000$
B. $\$ 540,000$
C. $\$ 690,000$
D. $\$ 800,000$
$(500,000+200,000+100,000)-(50,000+60,000+200,000)=490,000$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Net working capital
121.

You are evaluating the balance sheet for Ultra Corporation. From the balance sheet you find the following balances:
cash and marketable securities $=\$ 10,000$, accounts receivable $=\$ 2,000$, inventory $=\$ 20,000$, accrued wages and taxes $=$ $\$ 1,000$, accounts payable $=\$ 3,000$, and notes payable $=\$ 10,000$. Calculate Ultra's net working capital.
A. $\$ 8,000$
B. $\$ 18,000$
C. $\$ 28,000$
D. $\$ 32,000$
$(10,000+2,000+20,000)-(1,000+3,000+10,000)=18,000$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 1 Basic
Learning Goal: 02-01 Recall the major financial statements that firms must prepare and provide.
Topic: Net working capital
122. Which of the following is the term within the GAAP framework whereby firms can engage in a process of controlling their earnings, otherwise known as "smoothing" their earnings, as long as it's not taken to an extreme.
A. commingling
B. delisting
C. window dressing
D. earnings management

AACSB: Reflective Thinking Accessibility: Keyboard Navigation

Blooms: Understand Difficulty: 2 Intermediate
Learning Goal: 02-06 Observe cautions that should be taken when examining financial statements.
Topic: Ethics, governance, and regulation
123. A firm has sales of $\$ 10,000$, EBIT of $\$ 3,000$, depreciation of $\$ 400$, and fixed assets increased by $\$ 2,000$. If the firm's tax rate is 30 percent and there were no increases in net operating working capital, what is the firm's free cash flow?
A. $\$ 7400$
B. $\$ 600$
C. $\$ 500$
D. $-\$ 1,220$
$[3,000-(3,000 \times 0.3)+400]-2,000=\mathrm{FCF}=\$ 500$.

Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
124. A firm has sales of $\$ 50,000$, EBIT of $\$ 10,000$, depreciation of $\$ 4,000$, and fixed assets increased by $\$ 2,000$. If the firm's tax rate is 30 percent and a $\$ 1,000$ increase in net operating working capital, what is the firm's free cash flow?
A. $\$ 10,000$
B. $\$ 9,000$
C. $\$ 8,000$
D. $\$ 1,200$
$[10,000-(10,000 \times 0.3)+4,000]-(2000+1,000)=\mathrm{FCF}=\$ 8,000$.
AACSB: Analytical Thinking
Blooms: Apply
Difficulty: 2 Intermediate
Learning Goal: 02-05 Demonstrate how to use a firms financial statements to calculate its cash flows.
Topic: Free cash flow
125. Ultra Inc. had $\$ 100$ million in retained earnings at the beginning of the year. During the year, the firm paid $\$ 0.25$ per share dividend and generated $\$ 2.00$ earnings per share. The firm has 10 million shares outstanding. At the end of year, what was the level of retained earnings for GW?
A. $\$ 100$ million
B. $\$ 117.5$ million
C. $\$ 120$ million
D. $\$ 145$ million
$100 \mathrm{~m}+(2.00 \times 10 \mathrm{~m})-(0.25 \times 10 \mathrm{~m})=\$ 117.5 \mathrm{~m}$.

