Test Bank for Developmental Mathematics 3rd Edition by Martin Gay ISBN 0321936876 9780321936875

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MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Identify the numerator and the denominator of the fraction.

1) ⁶/₅

- A) Numerator 6
- B) Numerator $\frac{5}{6}$
- C) Numerator 5
- D) Numerator 11

Denominator 5

Denominator 6

- Denominator 6
- Denominator 1

Answer: A

Simplify.

2) $\frac{37}{37}$

A) $\frac{1}{37}$

B) 0

C) 1

D) 37

Answer: C

3) $\frac{48}{1}$

A) 48

B) $\frac{-}{48}$

C) 47

D) 1

Answer: A

4) $\frac{11}{0}$

A) 11

B) 0

C) $\frac{1}{11}$

D) undefined

Answer: D

5) $\frac{0}{9}$

A) $\frac{1}{9}$

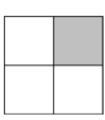
B) 9

- C) undefined
- D) 0

Answer: D

Write a fraction to represent the shaded part of the figure.

6)



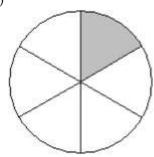
A) $\frac{1}{3}$

B) $\frac{1}{4}$

C) $\frac{3}{1}$

D) $\frac{3}{4}$

7)



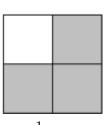
A) $\frac{1}{5}$ Answer: D

B) $\frac{5}{1}$

C) $\frac{5}{6}$

D) $\frac{1}{6}$

8)



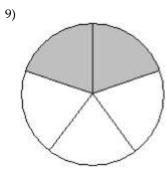
A) $\frac{1}{3}$

B) $\frac{3}{4}$

C) $\frac{1}{4}$

D) $\frac{3}{1}$

Answer: B



A) $\frac{3}{2}$

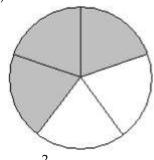
Answer: C

B) $\frac{2}{3}$

C) $\frac{2}{5}$

D) $\frac{5}{2}$





A) $\frac{2}{5}$

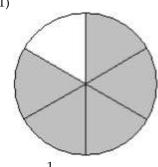
B) $\frac{3}{2}$

C) $\frac{3}{5}$

D) $\frac{2}{3}$

Answer: C

11)



A) $\frac{1}{5}$

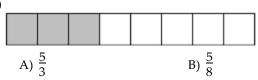
B) $\frac{5}{1}$

C) $\frac{1}{6}$

D) $\frac{5}{6}$

Answer: D

12)

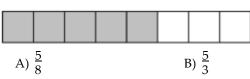


Answer: C

C) $\frac{3}{8}$

D) $\frac{3}{5}$

13)

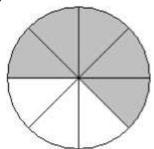


Answer: A

C) $\frac{3}{8}$

D) $\frac{3}{5}$

14)



A) $\frac{3}{5}$

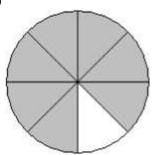
B) $\frac{5}{3}$

C) $\frac{3}{8}$

D) $\frac{5}{8}$

Answer: D

15)



A) $\frac{7}{1}$

B) $\frac{7}{8}$

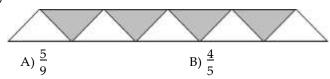
C) $\frac{1}{8}$

C) $\frac{4}{9}$

D) $\frac{1}{7}$

Answer: B

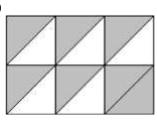
16)



Answer: C

D) $\frac{5}{4}$

17)



A) 5/12

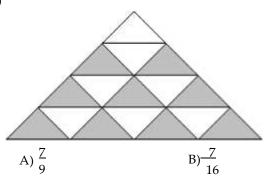
B) $\frac{7}{5}$

C) $\frac{5}{7}$

D)<u>7</u>

Answer: D

18)



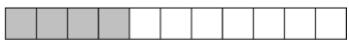
Answer: C

D) $\frac{9}{7}$

Draw and shade a part of a diagram to represent the figure.

19) $\frac{4}{7}$ of a diagram

A)



B)



C)



D)

Answer: D

20) $\frac{3}{8}$ of a diagram

A)







Answer: D

- 21) $\frac{5}{8}$ of a diagram
 - A)
 B)
 C)
 D)

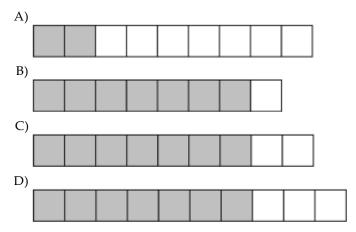
Answer: C

22) $\frac{4}{9}$ of a diagram

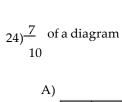


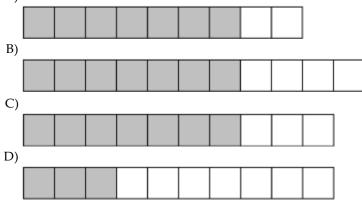
Answer: B

23) $\frac{7}{9}$ of a diagram



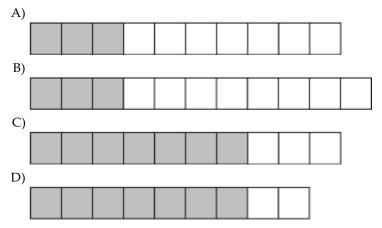
Answer: C





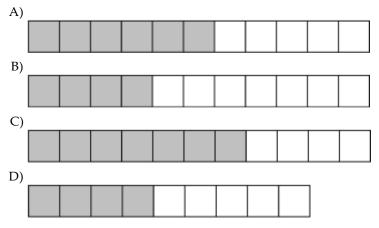
Answer: C

 $\begin{array}{c} 25) \frac{3}{10} \text{ of a diagram} \end{array}$



Answer: A

 $26)\frac{4}{11}$ of a diagram

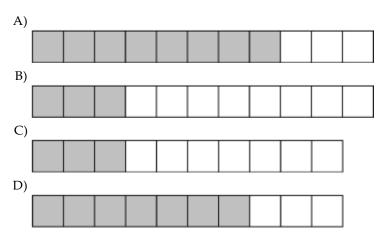


 $27)\frac{6}{11}$ of a diagram

A)
B)
C)
D)

Answer: D

 $28)\frac{8}{11}$ of a diagram



Answer: A

Write the fraction.

29) Of the 192 students at a private school, 33 are juniors. What fraction of the students are juniors?

A) $\frac{159}{33}$

B) 33 159 C) $\frac{192}{33}$

D) 33

Answer: D

30) Of the 269 students at a private school, 37 are juniors. What fraction of the students are NOT juniors?

A) $\frac{269}{232}$

B) $\frac{232}{37}$

C) $\frac{37}{269}$

D) $\frac{232}{269}$

Answer: D

31) Of the 107 doctors at a hospital, 58 are women. What fraction of the doctors are women?

A) $\frac{49}{58}$

B) 58/107

C) $\frac{58}{49}$

D) $\frac{107}{59}$

32) Of the 92 doctors at a	hospital, 88 are men. What fra	action of the doctors are NC	OT men?
A) $\frac{4}{88}$	B) $\frac{92}{4}$	C) $\frac{88}{4}$	D) $\frac{4}{92}$
Answer: D			

33) According to a recent study, 3 out of 16 visits to a hospital emergency room were for an injury. What fraction of emergency room visits are NOT injury-related?

A) $\frac{3}{13}$

B) $\frac{16}{13}$

C) $\frac{13}{16}$

D) $\frac{13}{3}$

Answer: C

34) There are 100 centimeters in a meter. What fractional part of a meter does 33 centimeters represent?

A) $\frac{33}{100}$

B) $\frac{33}{67}$

C) $\frac{67}{33}$

D) $\frac{100}{33}$

Answer: A

35) In a speech class containing 79 students, there are 16 freshmen, 8 sophomores, 9 juniors, and the rest are seniors. What fraction of the class is seniors?

A) $\frac{46}{103}$

B) $\frac{46}{79}$

C) $\frac{79}{46}$

D) 4

Answer: B

36) At Smith's Apple Orchard one day, 52 people were picking apples, 17 people were picking pumpkins, and 31 people were picking raspberries. What fractional part of the people were picking pumpkins?

A) $\frac{52}{100}$

B) $\frac{100}{17}$

C) $\frac{17}{83}$

D) $\frac{17}{100}$

Answer: D

37) At Smith's Apple Orchard one day, 59 people were picking apples, 31 people were picking pumpkins, and 10 people were picking raspberries. What fractional part of the people were picking either apples or pumpkins?

A) $\frac{59}{100}$

B) $\frac{31}{100}$

C) $\frac{90}{10}$

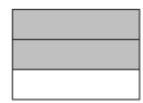
D) 90

Answer: D

Write the shaded area in the figure as a mixed number and as an improper fraction.

38)

A) $5\frac{1}{3}$; $\frac{5}{3}$

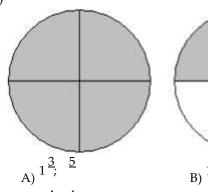


B) $1^{\frac{2}{3}}$; $\frac{5}{3}$

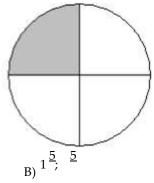
C) $2^{\frac{2}{3}}$; $\frac{5}{3}$

D) $1^{\frac{5}{6}}$; $\frac{5}{3}$

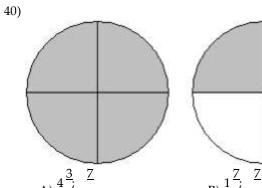
39)



Answer: D



C) $2^{\frac{1}{2}}$; $\frac{5}{}$

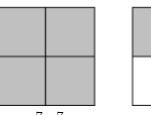


B) 1⁷; ⁷

C) 2³; ⁷

Answer: D

41)



A) $2^{\frac{7}{7}}$, $\frac{7}{7}$

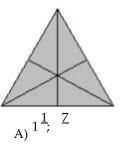
Answer: D

8 4

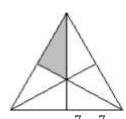
B) 4 3; 7 4 4

C) $\frac{1}{7}$; $\frac{7}{8}$ 8 4

42)



5 6



B) 1⁻⁷; ⁷

12 6

C) $1^{\frac{1}{2}}$; 7

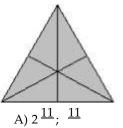
12 6

D) 1 ¹; ⁷

6 6

Answer: D

43)



B) $2^{\frac{5}{2}}$; $\frac{11}{}$

C) $1^{\frac{5}{2}}$; $\frac{11}{2}$

D) 1 11; 11

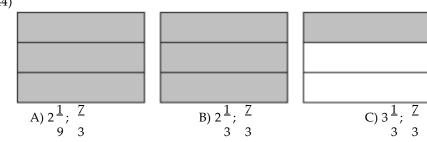
12 6 Answer: C

6 6

6 6

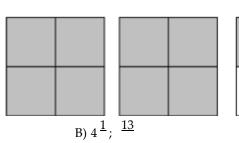
12 6

44)



Answer: B

45)



C) 3¹; ¹³

A) $4\frac{13}{}$; $\frac{13}{}$

16 4

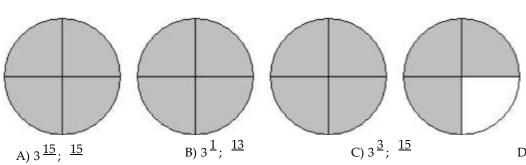
4 4

16 4

D) $3^{\frac{13}{3}}$; $\frac{13}{3}$

Answer: C

46)



A) $3\frac{15}{}$; $\frac{15}{}$

16 4

4 4

D) $4^{\frac{3}{2}}$; $\frac{15}{}$

4 4

Answer: C

Write the mixed number as an improper fraction.

A)
$$\frac{55}{7}$$

B)
$$\frac{48}{8}$$

C)
$$\frac{48}{7}$$

D)
$$\frac{55}{8}$$

Answer: D

A)
$$\frac{28}{5}$$

B)
$$\frac{28}{3}$$

C)
$$\frac{25}{3}$$

D)
$$\frac{25}{5}$$

Answer: A

A)
$$\frac{35}{5}$$

B)
$$\frac{35}{4}$$

C)
$$\frac{39}{4}$$

D)
$$\frac{39}{5}$$

Answer: D

A)
$$\frac{29}{5}$$

B)
$$\frac{25}{4}$$

C)
$$\frac{29}{4}$$

D)
$$\frac{25}{5}$$

Answer: A

A)
$$\frac{446}{25}$$

B)
$$\frac{357}{25}$$

Answer: A

52)
$$205\frac{3}{7}$$

A)
$$\frac{1438}{7}$$

D)
$$\frac{615}{7}$$

Answer: A

Write the improper fraction as a mixed or whole number. 53) $\frac{28}{}$

A)
$$\frac{1}{3}$$

C)
$$10^{\frac{1}{3}}$$

54) ³⁹
5

A) $7\frac{4}{5}$

B) 7⁴/₇

C) 8 \frac{4}{5}

D) $6^{\frac{4}{5}}$

Answer: A

55) <u>49</u> 6

A) 8 ¹/₇

B) 8 ¹/₆

C) 9 ¹/₆

D) $7^{\frac{1}{6}}$

Answer: B

56) $\frac{56}{7}$

A) 57

B) ⁸/₂

C) 8

D) 55

Answer: C

57) ⁵³ 11

A) $\frac{11}{53}$

Answer: D

B) 53 11 53

C) 53 53 11 D) 4⁹ 11

58) $\frac{152}{7}$

A) 152 152 7

Answer: C

B) 152⁷ 152 C) 21⁵
7

D) $\frac{7}{152}$

59) $\frac{193}{187}$

A) 187 6 187

B) 1 \frac{187}{6}

C) 1 6 193 D) 1 6 187

60) $\frac{904}{111}$

A) 7 16 111

Answer: D

Answer: D

B) 9<u>16</u> 111 C) 8 15 111 D) 8 16 111

List all the factors of the number.

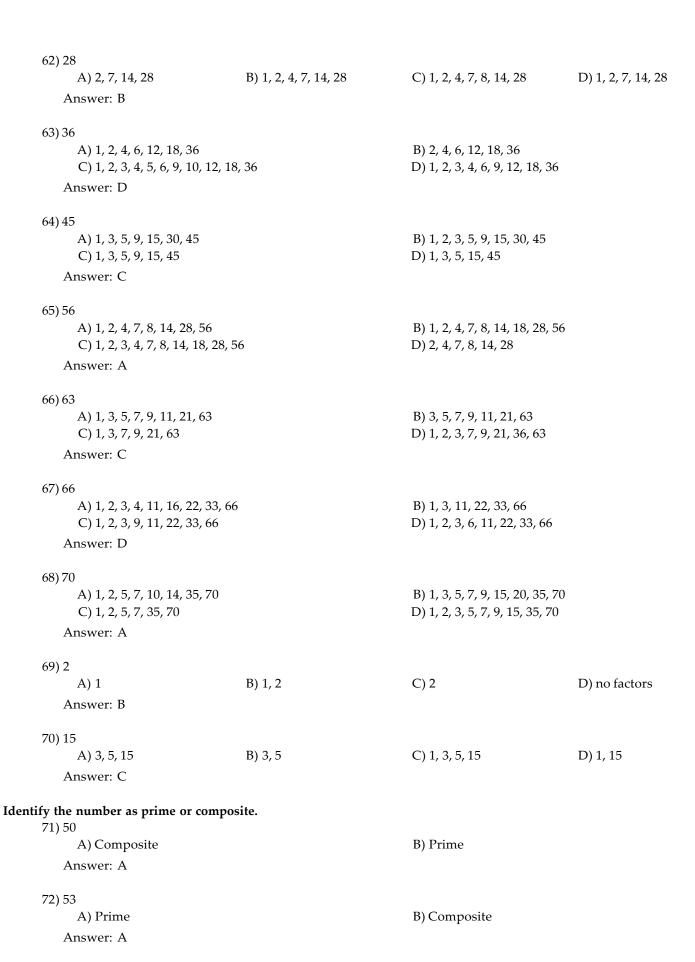
61) 30

A) 1, 2, 3, 5, 6, 10, 15, 30

B) 1, 2, 3, 5, 6, 10, 20, 30

C) 1, 5, 6, 30 D) 5, 6, 10, 30

Answer: A



	73) 88			
	A) Composite		B) Prime	
	Answer: A			
	74) 163			
	A) Prime		B) Composite	
	Answer: A			
	75) 189			
	A) Composite		B) Prime	
	Answer: A			
Fin	d the prime factorization of the	e number. Write any repeate	d factors using exponents.	
	A) 35 · 11	B) 5 ² · 11	C) 7 ² · 5	D) 5 · 7 · 11
	Answer: D			
	77) 445			
	A) 5 · 89	B) 5 ²	C) 5 · 87	D) 5 ² · 89
	Answer: A	,	,	,
	78) 64			
	A) 2 ⁶	B) 2 · 6	C) 6 ²	D) Prime
	Answer: A	2) = 0	3) 0	2)11
	79) 45			
	A) 9 · 5	B) 5 ²	C) 9 · 3	D) 3 ² · 5
	Answer: D	<i>D</i>)	C) 7 0	D) 5
	80) 275	7) - 442	0) =3 +4	5) = 44
	A) 5 ² · 11	B) 5 · 11 ²	C) 5 ³ · 11	D) 5 · 11
	Answer: A			
	81) 168			
	A) $2 \cdot 3^3 \cdot 7$	B) 2 ³ · 3 · 7	C) 2 · 3 · 7	D) $2^2 \cdot 3 \cdot 7$
	Answer: B			
	82) 90			
	A) $2 \cdot 3^2 \cdot 5$	B) 10 · 3 ²	C) $2^2 \cdot 3^2 \cdot 5$	D) 2 · 3 · 5
	Answer: A			
	83) 36			
	A) $2^2 \cdot 3$	B) $2^2 \cdot 3^2$	C) 2 · 3 ²	D) $2^2 \cdot 3^3$
	Answer: B	, -	, -	, -
	84) 684			
	A) 2 ⁴ · 19	B) $2^2 \cdot 3^2 \cdot 19$	C) $2^3 \cdot 3^2 \cdot 19$	D) 3 ⁴ · 19
	Answer: B	D) 2 0 17	C) 2 0 1)	D) 5 · 17
	1 11 to 17 C1. D			

85) 2600

A)
$$2 \cdot 5^4 \cdot 13$$

B)
$$2^3 \cdot 5^3 \cdot 13$$

C)
$$2^3 \cdot 5^2 \cdot 13$$

D) $2^4 \cdot 5 \cdot 13$

86) 795

A)
$$5^2 \cdot 53$$

Answer: D

Answer: C

B)
$$3^2 \cdot 53$$

87) 133

B)
$$7^2 \cdot 19$$

88) 24,975

A)
$$32 \cdot 53 \cdot 37$$

C)
$$34 \cdot 37$$

Answer: B

Write the fraction in simplest form.

89) 48 54

A)
$$\frac{8}{6}$$

B)
$$\frac{8}{9}$$

C)
$$\frac{6}{9}$$

D)
$$\frac{48}{54}$$

Answer: B

90) ⁵⁵ 77

A)
$$\frac{11}{7}$$

B)
$$\frac{5}{7}$$

C)
$$\frac{55}{77}$$

Answer: B

91) ²⁸

A)
$$\frac{14}{23}$$

B)
$$\frac{1}{47}$$

C)
$$\frac{28}{47}$$

D)
$$\frac{23}{14}$$

Answer: C

92) $\frac{30}{80}$

A)
$$\frac{3}{8}$$

B)
$$\frac{3}{10}$$

C)
$$\frac{30}{80}$$

D)
$$\frac{10}{8}$$

Answer: A

93) $\frac{140}{180}$

A)
$$\frac{140}{180}$$

B)
$$\frac{7}{9}$$

C)
$$\frac{7}{20}$$

D)
$$\frac{20}{9}$$

94) ⁵¹ 57

A) $\frac{3}{19}$

B) <u>51</u> 57

C) $\frac{17}{3}$

D) $\frac{17}{19}$

Answer: D

95) $\frac{198}{234}$

A) $\frac{11}{13}$

B) $\frac{18}{13}$

C) $\frac{11}{18}$

D) $\frac{198}{234}$

Answer: A

96) $\frac{520}{600}$

A) $\frac{15}{13}$

C) $\frac{520}{600}$

D) $\frac{13}{15}$

Answer: D

97) $\frac{189}{36}$

A) $\frac{4}{9}$

B) $\frac{21}{4}$

C) $\frac{21}{9}$

D) $\frac{9}{4}$

Answer: B

98) $\frac{240}{30}$

A) $\frac{8}{5}$

B) 8

C) $\frac{40}{5}$

D) $\frac{48}{6}$

Answer: B

99) $\frac{286}{33}$

A) $\frac{26}{3}$

B) $\frac{26}{11}$

C) 26

D) 11/3

Answer: A

100) <u>492</u> 2706

A) $\frac{3}{11}$

Answer: B

B) $\frac{2}{11}$

C) $\frac{123}{451}$

Determine whether the pair of fractions is equivalent. 101) $\frac{3}{9}$ and $\frac{21}{63}$

A) not equivalent

B) equivalent

102)
$$\frac{1}{7}$$
 and $\frac{9}{119}$

A) equivalent

B) not equivalent

Answer: B

103)
$$\frac{1}{4}$$
 and $\frac{9}{12}$

A) equivalent

B) not equivalent

Answer: B

104)
$$\frac{3}{8}$$
 and $\frac{39}{104}$

A) not equivalent

B) equivalent

Answer: B

$$105)^{\frac{9}{2}}$$
 and $\frac{6}{14}$

A) not equivalent

B) equivalent

Answer: B

106)
$$\frac{35}{60}$$
 and $\frac{42}{84}$

A) not equivalent

B) equivalent

Answer: A

Solve. Write the fractions in simplest form.

107) There are 5280 feet in a mile. What fraction of a mile is represented by 720 feet?

A)
$$\frac{720}{5280}$$

D) <u>1</u>

Answer: C

108) There are 100 centimeters in 1 meter. What fraction of a meter is 65 centimeters?

A)
$$\frac{13}{20}$$

B)
$$\frac{1}{10}$$

C)
$$\frac{13}{7}$$

D)
$$\frac{65}{100}$$

Answer: A

109) A company employes 144,000 employees worldwide. About 36,000 employees work in the United States. What fraction of the employees work in the United States?

A)
$$\frac{36,000}{144,000}$$

B)
$$\frac{1}{4}$$

D)
$$\frac{5}{2}$$

Answer: B

110) A company employs 675,000 employees worldwide. About 49,500 employees work in the United States. What fraction of the employees do NOT work in the United States?

B)
$$\frac{625,500}{675,000}$$

D)
$$\frac{139}{150}$$

Answer: D

111) There are 1200 employees at a company. If 900 are males, what fraction of the employees are males?

A) 900 males

B) $\frac{3}{4}$

C) $\frac{1}{3}$

D) $\frac{1}{4}$

Answer: B

112) There are 8000 runners at a marathon. If 6400 are male, what fraction of the runners are female?

A) $\frac{6400}{8000}$

B) $\frac{1}{5}$

C) $\frac{4}{5}$

D) $\frac{2}{8}$

Answer: B

113) A real estate agent categorized 100 available homes by housing style.

Distribution of Houses by Style

	5 5
Housing Style	Number of Homes
Two Story	38
One and One-Half Story	12
Raised Ranch	6
Split Level	25
Ranch	19

What fraction of available homes are split-level homes?

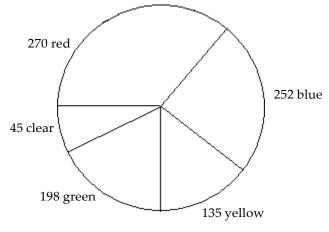
A) $\frac{1}{3}$

B) $\frac{25}{75}$

1 C) 4 D) 25

Answer: C

114) The following graph is called a circle graph or pie chart. Each sector (shaped like a piece of pie) shows the number of each color of marbles that Jay has: 270 are red, 252 are blue, 135 are yellow, 198 are green, and 45 are clear. What fraction of the marbles are red? Write the fraction in simplest form.



A) $\frac{3}{7}$

B) <u>3</u>

C) $\frac{270}{900}$

D) $\frac{1}{5}$

Multiply. Write the answer in simplest form.

- $\frac{2}{115}$, $\frac{8}{5}$, $\frac{8}{9}$
 - A) $\frac{16}{45}$

5 B) 7 C) $\frac{45}{16}$

D) $\frac{20}{9}$

Answer: A

- $116)\frac{7}{10} \cdot \frac{17}{11}$
 - A) 77 170

B) $\frac{2}{3}$

C) $\frac{8}{7}$

D) $\frac{119}{110}$

Answer: D

117) ¹ · ¹⁵

7 20

A) $\frac{3}{28}$

B) $\frac{16}{27}$

C) $\frac{4}{21}$

D) $\frac{21}{22}$

Answer: A

- 118) $\frac{1}{3} \cdot \frac{4}{5} \cdot \frac{2}{5}$
 - A) $\frac{8}{13}$

B) $\frac{1}{6}$

C) $\frac{8}{75}$

D) $\frac{4}{75}$

Answer: C

119) 3 · 3

9 7

A) $\frac{1}{7}$

B) $\frac{3}{8}$

C) $\frac{5}{6}$

D) $\frac{7}{9}$

Answer: A

- 120) $\frac{5}{1} \cdot \frac{18}{11}$
 - A) $\frac{90}{11}$

B) $\frac{55}{18}$

C) $\frac{16}{19}$

D) $\frac{23}{12}$

Answer: A

- 121) 0 · ²/₃
 - A) undefined
- B) 0

C) $\frac{2}{3}$

D) $\frac{3}{2}$

122) $\frac{10}{11} \cdot 0$			
A) $\frac{10}{11}$	B) $\frac{11}{10}$	C) ⁰	D) undefined
Answer: C		ς,	
123) $\frac{17}{18} \cdot \frac{1}{18} \cdot \frac{1}{18}$	17	618	11
A) 17/324	B) 17/648	C) $\frac{648}{17}$	D) 11 144
Answer: B			
124) $\frac{4}{} \cdot 0 \cdot \frac{1}{}$			
7 5 A) $\frac{9}{19}$	p) -4		
A) $\overline{19}$	B) $\frac{4}{35}$	C) ⁰	D) undefined
Answer: C			
125) $\frac{1}{2} \cdot \frac{3}{7} \cdot \frac{6}{14} \cdot \frac{28}{2}$			
A) $\frac{9}{7}$	B) <u>38</u> 25	C) <u>3</u> 14	D) $\frac{7}{9}$
, ,	23	14	<i>,</i> 9
Answer: A			
126) $4\frac{1}{5} \cdot 5$			
A) 9 ¹ / ₅	B) 100	C) 21	D) 20
Answer: C			
127) 4 · 6 ⁷ 18			
A) 24 ⁷ / ₁₈	B) 25 ⁵ 9	C) 25 ⁷ 9	D) 10 ⁵ / ₉
Answer: B	,	,	

128) 1 ¹ · ⁴

B) <u>8</u> 15

C) 1⁸
15

D) $\frac{6}{15}$

Answer: B

129) $1^{\frac{7}{6}} \cdot 6^{\frac{2}{6}}$

A) 11 B) 6 C) 4 D) 12

Answer: D

130)
$$3 \cdot 4 \frac{8}{15}$$
A) $12 \frac{8}{15}$

B) 12

Answer: D

131) 1 ¹ · 5 · ³

B) 6 \frac{4}{7}

C) 5⁷ 15

D) 5 \frac{4}{7}

Answer: A

B) 57³/₈

C) 15³/₈

D) 54⁹
16

Answer: B

133) 1 ⁴ · ⁴

B) 4 \frac{4}{5}

C) $\frac{4}{5}$

D) $\frac{2}{5}$

Answer: C

134) 45 · ⁵/₉

A)
$$\frac{203}{27}$$

B) $\frac{225}{9}$

C) 25

D) 20

Answer: C

135) $\frac{2}{3} \cdot 7$

A) $\frac{23}{3}$

B) $\frac{11}{6}$

C) $\frac{2}{21}$

D) $\frac{14}{3}$

Answer: D

 $136)\frac{7}{13}\cdot 1$

A) $\frac{7}{13}$

B) $\frac{4}{7}$

C) 1

D) ¹³ 7

Answer: A

137) 1 · $\frac{4}{5}$

A) $\frac{5}{4}$ B) 1 C) $\frac{4}{5}$ D) $\frac{5}{6}$

Answer: C

138)
$$\frac{13}{20} \cdot 80 \cdot \frac{100}{40}$$

A) $\frac{1}{130}$

B) 130

C) 80

D) $\frac{13}{8}$

Answer: B

139)
$$3^{\frac{2}{3}} \cdot 5^{\frac{6}{5}} \cdot 1^{\frac{1}{2}}$$

A) $15\frac{5}{42}$

Answer: C

B) 9⁻⁵/₄₂

D) $15^{\frac{2}{7}}$

Multiply. Write the answer in simplest form. Find both an exact product and an estimated product.

$$\frac{1}{140}$$
 $3^{\frac{1}{2}}$ $2^{\frac{1}{2}}$

A) Exact: $\frac{36}{7}$

B) Exact: 242 35

C) Exact: $\frac{36}{7}$

D) Exact: <u>242</u>

Estimate: 6

Estimate: 12

Estimate: 12

Estimate: 6

Answer: D

141)
$$3^{\frac{3}{2}} \cdot 2^{\frac{2}{2}}$$

4 3

A) Exact: 91

B) Exact: Exact: 91

Estimate: 6

C) Exact: 10 Estimate: 12 D) Exact: 10 Estimate: 6

Estimate: 12 Answer: C

Solve. Write the answer in simplest form.

142) Find the area of the rectangle. Write the answer in simplest form. Recall that the area = (length) (width).



 $\begin{bmatrix} A \\ B \end{bmatrix}$ $A = \frac{4}{5} \text{ foot}$

 $B = \frac{1}{2} \text{ foot}$

A) $\frac{4}{}$ square foot

B) $\frac{5}{}$ square foot C) $\frac{2}{}$ square foot

D) $\frac{4}{}$ square foot

7

5

10

Answer: C

143) Find the area of the rectangle. Write the answer in simplest form. Recall that the area = (length) (width). $A = \frac{3}{11}$ yard B = 11 yardsA) $\frac{33}{11}$ square yards B) $\frac{124}{11}$ square yards C) 3 square yards D) $\frac{14}{11}$ square yards Answer: C Raya is saving $\frac{3}{14}$ of her monthly income of \$5754 for retirement. How much money is she setting aside each month for retirement? B) \$1233 A) \$26,852 C) \$411 D) \$137 Answer: B 145) Maria exercises for $1\frac{1}{7}$ hours every Saturday. She runs for $\frac{3}{8}$ of the time that she exercises. How much time does she spend running every Saturday?

A) $\frac{1}{7}$ hour

B) $1\frac{3}{7}$ hours

C) $1\frac{3}{56}$ hours

D) $\frac{3}{7}$ hour

7 Answer: D 146) Byron rode his bicycle $6\frac{5}{18}$ miles on each of 8 days. What is the total distance Byron rode? B) $14^{\frac{2}{3}}$ miles

C) $50^{\frac{4}{3}}$ miles D) $48^{\frac{5}{}}$ miles A) $50^{\frac{2}{}}$ miles Answer: A

147) Jennifer is building some shelves and requires 7 pieces of wood that are each $1\frac{2}{7}$ feet long. What is the total length of wood that Jennifer needs?

A) 7 feet

B) 9 feet

- C) 49 feet
- D) $8\frac{2}{7}$ feet

Answer: B

148) A rectangular flower bed in front of a building measures $5\frac{5}{8}$ feet by $3\frac{5}{9}$ feet. What is the total area of the flower

bed? Hint: The area of a rectangle is the product of the length times the width.

- A) 20 square feet
- B) $15\frac{25}{}$ square feet 72
- C) 21 square feet
- D) 25 square feet

Answer: A

- 149) A recipe calls for $\frac{1}{4}$ of a pound of sausage. How much sausage should be used if only $\frac{1}{2}$ of the recipe is being
 - made?
 A) $\frac{1}{6}$ lb

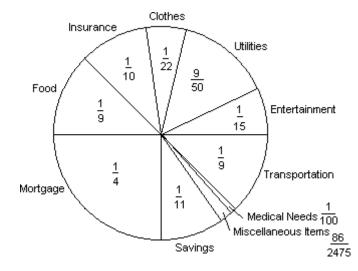
B) $\frac{1}{2}$ lb

C) $\frac{1}{3}$ lb

D) $\frac{1}{8}$ lb

Answer: D

150) The circle graph below shows the fractional part of the Suarez family's budget spent in each category each month.



If the Suarez's income last month was \$2500, how much money did they spend on their savings? Round to the nearest cent, if necessary.

- A) \$227.27
- B) \$625.00
- C) \$113.63
- D) \$250.00

Answer: A

- 151) Find $\frac{1}{17}$ of 68.
 - A) <u>1</u> 1156

B) 1156

C) 17

D) 4

Answer: D

- 152) Find $\frac{5}{7}$ of 42.
 - A) 42

B) 30

C) 5 294 D) $\frac{294}{5}$

Answer: B

Find the reciprocal of the number.

153) ⁵
7

A) 7

B) ⁷/₅

C) $\frac{7}{1}$

D) $\frac{1}{5}$

154) ¹/₉

A) $\frac{1}{9}$

B) 0

C) 1

D) 9

Answer: D

155)<u>1</u> 14

A) 0

B) 1 14

C) 1

D) 14

Answer: D

156)8

A) 1

B) 8/1

C) 8

D) $\frac{1}{8}$

Answer: D

157) 17

A) 17

B) 17

C) 1

D) ¹⁷
1

Answer: B

158) ³/₂

A) $\frac{1}{3}$

Answer: B

B) $\frac{2}{3}$

C) 2

D) ²
1

Divide. Write the answer in simplest form. 159) $\frac{6}{6} \div \frac{4}{5}$

A) $\frac{10}{11}$

B) 5

C) $\frac{11}{24}$

Answer: D

 $160) \frac{4}{19} \div \frac{3}{4}$

A) $25\frac{1}{3}$

B) $\frac{16}{57}$

C) $\frac{7}{23}$

D) $\frac{3}{76}$

Answer: B

 $\begin{array}{c}
 161) \overline{} \\
 19 \\
 \end{array}
 \div \underline{} \\
 20$

A) $\frac{140}{171}$ B) $\frac{138}{171}$ C) $\frac{140}{169}$

D) $\frac{139}{171}$

Answer: A

$$162)\frac{7}{19} \div \frac{9}{17}$$

A) $\frac{119}{171}$

B) $\frac{119}{169}$

C) $\frac{118}{171}$

D) $\frac{13}{19}$

Answer: A

 $163)\frac{6}{19} \div \frac{9}{19}$

A) $\frac{2}{1}$

B) $\frac{1}{3}$

C) $\frac{2}{3}$

D) $\frac{0}{3}$

Answer: C

 $164)\frac{7}{20} \div \frac{7}{16}$

A) $\frac{4}{3}$

B) $\frac{4}{5}$

C) $\frac{3}{5}$

D) $\frac{2}{5}$

Answer: B

165) $\frac{9}{2} \div \frac{22}{3}$

7 4
A) $\frac{18}{77}$

B) $\frac{13}{29}$

C) $\frac{31}{11}$

D) $\frac{99}{14}$

Answer: A

166) $\frac{16}{5} \div \frac{4}{5}$

A) 5

B) 3

C) ⁵/₂

D) 4

Answer: D

Solve.

- 167) How many $\frac{13}{16}$ pound boxes of cereal can be made from 28,704 pound of cereal?
 - A) 2208 boxes
- B) 23,322 boxes
- C) 35,328 boxes
- D) 1794 boxes

Answer: C

168) On a recent trip, Asha drove 206 miles on $12\frac{1}{6}$ gallons of gasoline. How many miles per gallon did she

average?
A) $\frac{73}{}$ miles per gallon

B) $412^{\frac{1}{2}}$ miles per gallon

1236
C) $16\frac{68}{73}$ miles per gallon

D) $2506\frac{1}{3}$ miles per gallon

Answer: C

169) Mark	169) Mark is filling decorative oil lamps for a reception. Each lamp can hold $\frac{1}{7}$ cup of oil. Mark has $1\frac{3}{7}$ cups of oil.					
avail	available. How many oil lamps can Mark fill completely?					
	9 oil lamps	1	C) 10 oil lamps	D) 11 oil lamps		
Ansv	ver: C					
170) Ted v	valks around a lake on a p	ath that is $4^{\frac{5}{7}}$ miles long. It t	akes him $2\frac{6}{7}$ hours to comple	ete his walk. What is		
his av	verage speed (in miles per	hour)?				
A)	$1\frac{13}{10}$ miles per hour		B) $2^{\frac{13}{}}$ miles per hour			
	19		20			
C)	$1\frac{14}{20}$ miles per hour		D) $1\frac{13}{20}$ miles per hour			
Ansv	ver: D					
171) Toni	needs to cut a $6\frac{4}{5}$ - foot bo	ard into 3 equal pieces. How	long should each piece be?			
A)	2 ⁴ / ₅ ft	B) $2^{-\frac{4}{3}}$ ft	C) $20^{\frac{2}{5}}$ ft	D) 6^{-4} ft		
/	5	B) 2 ⁻⁴ / ₅ ft	5	15		
Ansv	ver: B					
Divide. Write th	he answer in simplest for	m.				
172) 0 ÷ ³						
6						
A)	0	B) 2	C) $\frac{1}{2}$	D) Undefined		
Ansv	ver: A					
$173)^{\frac{2}{}} \div 0$						
	Undefined	B) $\frac{2}{7}$	C) 0	D) 3 ¹ / ₂		
Ansv	ver: A					
174) $\frac{1}{7} \div \frac{1}{7}$	<u>[</u>					
A)		B) 1/49	C) $\frac{1}{7}$	D) 1		
Ansv	ver: D					
Daniela (1	lianted emperation Write H					

Perform the indicated operation. Write the answer in simplest form. 175) $\frac{77}{9} \cdot \frac{27}{121} \div \frac{7}{11}$

175)
$$\frac{77}{9} \cdot \frac{27}{121} \div \frac{7}{11}$$
A) $\frac{1}{3}$

C) 3

D) $\frac{147}{121}$

Answer: C

Divide. Write the answer in simplest form.

176)
$$5\frac{7}{9} \div 5\frac{1}{6}$$
A) $1\frac{12}{93}$

Answer: B

177)
$$4^{\frac{5}{2}} \div 4^{\frac{1}{2}}$$

Answer: A

178)
$$21 \div 4\frac{1}{5}$$

Answer: C

179)
$$2\frac{4}{5} \div 7$$
A) $\frac{1}{5}$

B)
$$\frac{2}{4}$$

C)
$$\frac{3}{5}$$

D)
$$\frac{2}{5}$$

Answer: D

180)
$$5^{\frac{7}{2}} \div 4^{\frac{1}{2}}$$

Answer: A

$$181) 4^{\frac{2}{3}} \div {\frac{2}{3}}$$

Answer: B

182)
$$\frac{6}{6} \div 7$$

B)
$$\frac{1}{6}$$

D)
$$\frac{1}{7}$$

Answer: D

183) $28 \div \frac{7}{5}$

B) 20

C) $\frac{37}{2}$

D) 19

Answer: B

A) 21

184) 1 ÷ $\frac{6}{7}$

A) $\frac{7}{8}$

B) 1 ¹/₆

C) $\frac{6}{7}$

D) $1\frac{1}{3}$

Answer: B

185) $0 \div 16 \frac{3}{10}$

A) $16\frac{3}{10}$

B) <u>3</u> 10

C) 0

D) undefined

Answer: C

 $186)\frac{8}{19} \div 1$

A) $\frac{19}{8}$

Answer: D

B) $\frac{9}{20}$

C) 1

D) 8 19

Solve.

187) How many $\frac{7}{9}$ pound boxes of cereal can be made from 9009 pound of cereal?

A) 7007 boxes

B) 11,583 boxes

C) 1287 boxes

D) 1001 boxes

Answer: B

188) On a recent trip, Asha drove 258 miles on $8\frac{1}{9}$ gallons of gasoline. How many miles per gallon did she average?

A) $31\frac{59}{73}$ miles per gallon

B) $2092^{\frac{2}{3}}$ miles per gallon

C) 73 miles per gallon

D) $229^{\frac{4}{2}}$ miles per gallon

2322

9

Answer: A

189) Mark is filling decorative oil lamps for a reception. Each lamp can hold $\frac{2}{5}$ cup of oil. Mark has $1\frac{3}{5}$ cups of oil available. How many oil lamps can Mark fill completely?

A) 3 oil lamps

B) $2^{\frac{1}{2}}$ oil lamps

C) 5 oil lamps

D) 4 oil lamps

Answer: D

190) Ted walks around a lake on a path that is $5^{\frac{2}{3}}$ miles long. It takes him $3^{\frac{1}{3}}$ hours to complete his walk. What is

his average speed (in miles per hour)?

A) $1^{\frac{24}{}}$ miles per hour

B) $1\frac{23}{28}$ miles per hour 28

C) $1^{\frac{23}{2}}$ miles per hour

D) $2^{\frac{23}{}}$ miles per hour

Answer: B

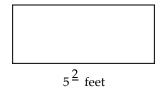
191) Toni needs to cut a $4\frac{1}{9}$ - foot board into 3 equal pieces. How long should each piece be?

A) $1^{\frac{4}{9}}$ ft

- B) 1 \frac{10}{27} ft
- C) $4\frac{1}{27}$ ft
- D) $12^{\frac{1}{3}}$ ft

Answer: B

192) The area of the rectangle is 8 square feet. If its length is $5^{\frac{2}{9}}$ feet, find its width.



- B) 1 \frac{19}{37} ft
- C) $21\frac{1}{7}$ ft

Answer: B

193) The perimeter of the square is $12\frac{2}{9}$ meters. Find the length of each side.



- B) $6\frac{1}{9}$ m
- C) $3\frac{1}{18}$ m
- D) $48\frac{8}{9}$ m

Answer: C

Solve. Write the answer in simplest form.

194) Approximately $\frac{3}{14}$ of a worldwide corporation's employees live and work in the United States. If 6636

employees live and work in the United States, how many employees does the corporation have worldwide?

- A) 30,968 employees
- B) 474 employees
- C) 1422 employees
- D) 2212 employees

Answer: A

Fill in the blank with one of the words or phrases listed below.

mixed nur composite prime nur reciprocal	e number mber	equivalent improper fraction proper fraction cross products		est form erator	undefined prime factorization denominator	
195)	Two numbers	are	of each other if t	heir produc	t is 1.	
,	A) undefine				C) reciprocals	D) mixed number
	Answer: C					
196)	A(n)	is a natural n	umber greater th	nan 1 that is	not prime.	
	A) numerate	or	B) composite n	umber	C) mixed number	D) denominator
	Answer: B					
197)	Fractions that 1	represent the san	ne portion of a w	hole are call	ledfractions.	
	A) prime nu	ımber	B) simplest form	n	C) equivalent	D) undefined
	Answer: C					
198)	A(n)				han or equal to its denomi	nator.
	A) prime nu	ımber	B) improper fra	iction	C) proper fraction	D) mixed number
	Answer: B					
199)	A(n)	is a natural n			only factors are 1 and itse	
	A) numerate	or	B) mixed numb	er	C) prime number	D) composite numbe
	Answer: C					
200)	A fraction is in	wh	en the numerato	r and the de	nominator have no factors	s in common other than 1.
	A) equivaler				B) 0	
	C) simplest	form			D) prime factorization	
	Answer: C					
201)	A(n)	is one whose	numerator is les	s than its de	enominator.	
	A) improper	r fraction	B) prime numb	er	C) mixed number	D) proper fraction
	Answer: D					
202)	A(n)	contains a w	hole number par	t and a fracti	ion part.	
	A) mixed nu				B) composite number	
	C) prime fac	ctorization			D) prime number	
	Answer: A					
203)	In the fraction	$\frac{7}{9}$, the 7 is called	the	and the 9 is	s called the	
	A) composit	te number, prime	e number		B) numerator, denomina	ator
	C) denomin	ator, numerator			D) numerator, prime nur	nber
	Answer: B					

- A) simplest form
- C) reciprocals

Answer: B

- B) prime factorization
- D) 0

205) The fraction $\frac{3}{0}$ is _____

- A) prime factorization
- C) proper fraction

Answer: B

- B) undefined
- D) 0

206) The fraction $\frac{0}{5}$ is _____.

- A) proper fraction
 - C) 0

Answer: C

B) undefined

D) prime factorization

207) In $\frac{a}{b} = \frac{c}{c}$, a · d and b · c are called b · d

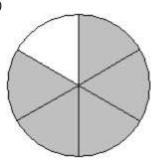
- A) simplest form
- C) reciprocals

Answer: B

- B) cross products
- D) prime factorization

Write a fraction to represent the shaded area.

208)



A) $\frac{1}{5}$

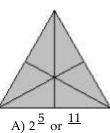
B) $\frac{1}{6}$

C) $\frac{5}{6}$

D) $\frac{5}{1}$

Answer: C

209)



6 6

B) $1^{\frac{5}{2}}$ or $\frac{11}{2}$

6 6 C) 1 11 or 11

12 6 D) 2 11 or 11

12

Write the mixed number as an improper fraction.

A)
$$\frac{47}{7}$$

B)
$$\frac{42}{5}$$

C)
$$\frac{42}{7}$$

D)
$$\frac{47}{5}$$

Answer: A

A)
$$\frac{27}{2}$$

D)
$$\frac{159}{10}$$

Answer: D

Write the improper fraction as a mixed or whole number. $212) \frac{29}{}$

Answer: C

Answer: D

Write the fraction in simplest form.

A)
$$\frac{60}{80}$$

B)
$$\frac{20}{4}$$

C)
$$\frac{3}{20}$$

Answer: D

A)
$$\frac{14}{11}$$

Answer: B

B)
$$\frac{14}{17}$$

C)
$$\frac{11}{17}$$

D)
$$\frac{154}{187}$$

Determine whether the pair of fractions is equivalent.

216)
$$\frac{5}{9}$$
 and $\frac{15}{27}$

A) equivalent

B) not equivalent

Answer: A

217)
$$\frac{5}{7}$$
 and $\frac{75}{140}$

A) equivalent

Answer: B

B) not equivalent

Find the prime factorization of the number.

218) 350

A)
$$14 \cdot 5^2$$

D)
$$2^2 \cdot 5^2 \cdot 7$$

Answer: B

219) 4725

A)
$$3^4 \cdot 5 \cdot 7$$

B)
$$3^3 \cdot 5^3 \cdot 7$$

C)
$$3 \cdot 5^4 \cdot 7$$

D)
$$3^3 \cdot 5^2 \cdot 7$$

Answer: D

Perform the indicated operation. Write the answer in simplest form.

220)
$$\frac{7}{8} \div \frac{2}{7}$$

A)
$$\frac{3}{5}$$

B)
$$\frac{7}{8}$$

D)
$$\frac{1}{4}$$

Answer: C

$$221)^{\frac{5}{10}} \cdot \frac{14}{4}$$

A)
$$\frac{3}{8}$$

C)
$$\frac{1}{7}$$

D)
$$\frac{7}{4}$$

Answer: D

222)
$$\frac{3}{4} \cdot 5$$

A)
$$\frac{23}{4}$$

B)
$$\frac{3}{20}$$

C)
$$\frac{15}{4}$$

D)
$$\frac{11}{8}$$

Answer: C

223) 7 . 1

9 6

A)
$$\frac{3}{14}$$

B)
$$\frac{54}{7}$$

C)
$$\frac{7}{54}$$

D)
$$\frac{8}{15}$$

Answer: C

224)
$$18 \div \frac{9}{2}$$

A) 5

B) 3

C) 4

D) ⁵/₂

Answer: C

225) $2\frac{8}{9} \div 13$ A) $\frac{2}{8}$

B) $\frac{3}{9}$

C) $\frac{1}{9}$

D) $\frac{2}{9}$

Answer: D

- 226) $\frac{1}{}$ · $\frac{4}{}$ · $\frac{3}{}$
 - 3 7 8
 A) $\frac{2}{7}$

B) <u>1</u>

C) <u>7</u> 32 D) <u>1</u> 14

Answer: D

227) $1\frac{1}{8} \div \frac{1}{8}$ A) 8

B) 9

C) 10

D) 7 ¹/₂

Answer: B

- 228) $\frac{17}{7} \div \frac{1}{7}$
 - A) 16

B) 18

C) 31/2

D) 17

Answer: D

- 229) $4\frac{4}{5} \cdot 2\frac{1}{2}$
 - A) 6

B) 8

C) 11

D) 12

- Answer: D $230) 39 \div 3\frac{1}{4}$
 - A) $10^{\frac{1}{2}}$

B) 12

C) 11

D) 13

Answer: B

- 231) ¹⁹ · ²⁰ · 3
 - 5 13
 - A) $\frac{228}{13}$

B) $\frac{42}{65}$

C) $\frac{76}{13}$

D) $\frac{76}{39}$

Answer: A

Solve. Write the answer in simplest form.

232) Find the area of each rectangle. Write the answer in simplest form. Recall that the area = (length) (width).



- A) $\frac{6}{}$ square foot

- B) $\frac{3}{2}$ square foot C) $\frac{1}{2}$ square foot D) $\frac{2}{2}$ square foot

33

Answer: D

- 233) On a recent trip, Asha drove 234 miles on $6\frac{1}{6}$ gallons of gasoline. How many miles per gallon did she average?
 - A) 1443 miles per gallon

B) $234\frac{1}{6}$ miles per gallon

C) $37^{\frac{35}{2}}$ miles per gallon

D) $\frac{37}{1404}$ miles per gallon

Answer: C

234) A rectangular flower bed in front of a building measures $13\frac{1}{5}$ feet by $3\frac{3}{5}$ feet. What is the total area of the

flower bed?

- A) $\frac{39^{\frac{3}{15}}}{15}$ square feet
- B) 43 square feet C) 49 square feet
- D) 48 square feet

Answer: D

235) Julie is saving $\frac{2}{19}$ of her monthly income of \$6612 for retirement. How much money is she setting aside each

month for retirement?

A) \$348

B) \$174

C) \$696

D) \$62,814

Answer: C