

**TEST BANK**



Fourth Edition  
**Basic College  
Mathematics**



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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)  $\frac{4}{9}$

1) \_\_\_\_\_

A) Numerator  
9

B) Numerator  
4

C) Numerator  
13

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

Denominator  
4

Denominator  
9

Denominator 1

Denominator  
4

**Simplify.**

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

2) \_\_\_\_\_

A) 1

B) 11

C) 0

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

3)  $\frac{39}{1}$

3) \_\_\_\_\_

A) 1

B) 38

C)  $\frac{1}{39}$

D) 39

4)  $\frac{38}{0}$

4) \_\_\_\_\_

A) 38

B) undefined

C) 0

D)  $\frac{1}{38}$

5)  $\frac{0}{47}$

5) \_\_\_\_\_

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

B) 47

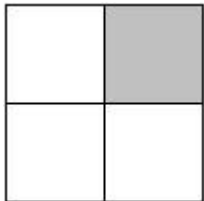
C) 0

D) undefined

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

6)

6) \_\_\_\_\_



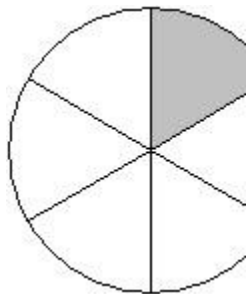
A)  $\frac{1}{3}$

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

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

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

7)



7)

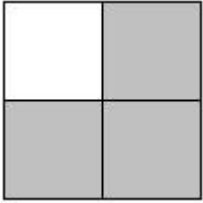
A)  $\frac{5}{6}$

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

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

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

8)



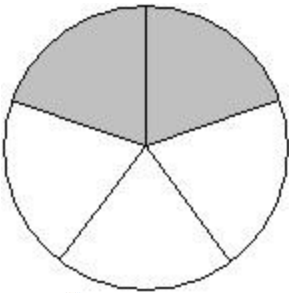
A)  $\frac{1}{4}$

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

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

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

9)



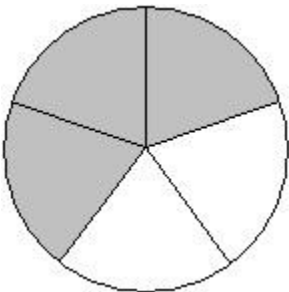
A)  $\frac{2}{3}$

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

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

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

10)



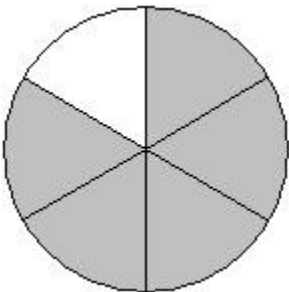
A)  $\frac{3}{5}$

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

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

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

11)



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

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

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

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

12)



8) \_\_\_\_\_

9) \_\_\_\_\_

10) \_\_\_\_\_

11) \_\_\_\_\_

12)

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

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

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

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

13)



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

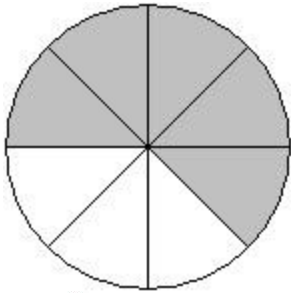
B)  $\frac{5}{8}$

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

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

13) \_\_\_\_\_

14)



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

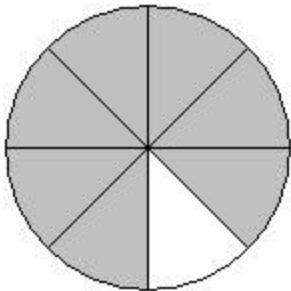
B)  $\frac{5}{8}$

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

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

14) \_\_\_\_\_

15)



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

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

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

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

15) \_\_\_\_\_

16)



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

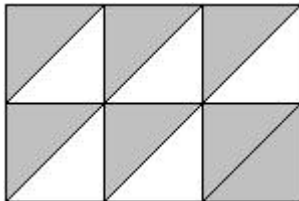
B)  $\frac{4}{9}$

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

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

16) \_\_\_\_\_

17)



A)  $\frac{5}{12}$

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

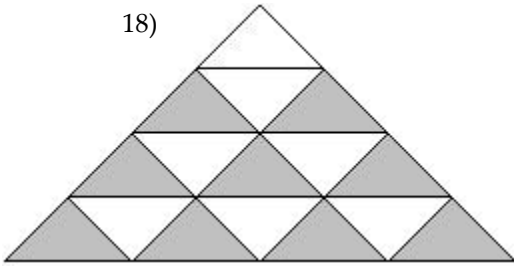
C)  $\frac{5}{7}$

D)  $\frac{7}{12}$

17) \_\_\_\_\_

18)

18)



—  
—

A)  $\frac{9}{16}$

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

C)  $\frac{7}{16}$

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

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

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

of a diagram

19) \_\_\_\_\_

A)



B)



C)



D)

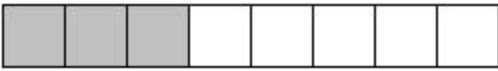


20)  $\frac{3}{8}$

of a diagram

20) \_\_\_\_\_

A)



B)



C)



D)



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

of a diagram

21) \_\_\_\_\_

A)



B)



C)



D)



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

of a diagram

22) \_\_\_\_\_

A)



B)



C)



D)



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

of a diagram

23) \_\_\_\_\_

A)



B)



C)



D)



24)  $\frac{7}{10}$

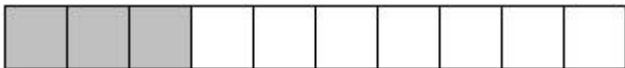
of a diagram

24) \_\_\_\_\_

A)



B)



C)



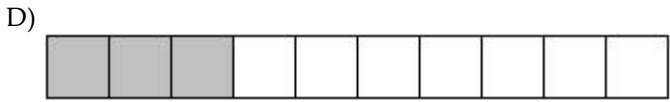
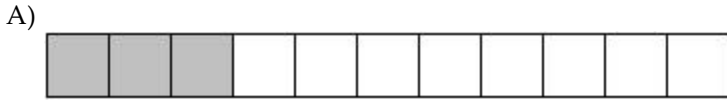
D)



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

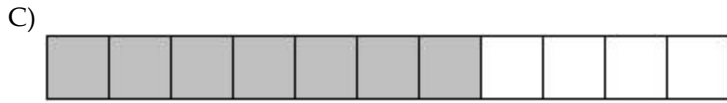
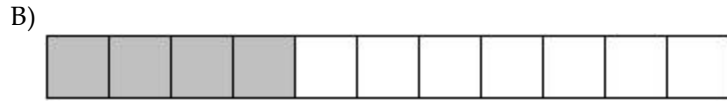
of a diagram

25) \_\_\_\_\_



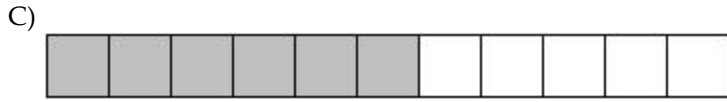
26)  $\frac{4}{11}$  of a diagram

26) \_\_\_\_\_



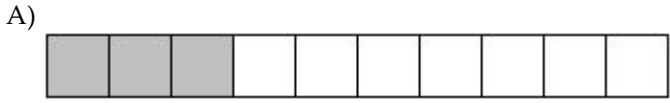
27)  $\frac{6}{11}$  of a diagram

27) \_\_\_\_\_



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

28) \_\_\_\_\_



C)



D)



**Write the fraction.**

- 29) Of the 217 students at a university, 49 are juniors. What fraction of the students are juniors? 29) \_\_\_\_\_  
 A)  $\frac{217}{49}$                       B)  $\frac{49}{168}$                       C)  $\frac{49}{217}$                       D)  $\frac{168}{49}$
- 30) Of the 187 students at a college, 56 are freshmen. What fraction of the students are NOT freshmen? 30) \_\_\_\_\_  
 A)  $\frac{131}{56}$                       B)  $\frac{131}{187}$                       C)  $\frac{56}{187}$                       D)  $\frac{187}{131}$
- 31) Of the 85 executives at a private accounting firm, 78 are men. What fraction of the executives are men? 31) \_\_\_\_\_  
 A)  $\frac{85}{78}$                       B)  $\frac{7}{78}$                       C)  $\frac{78}{7}$                       D)  $\frac{78}{85}$
- 32) Of the 62 teachers at a school, 57 are women. What fraction of the teachers are NOT women? 32) \_\_\_\_\_  
 A)  $\frac{62}{5}$                       B)  $\frac{5}{57}$                       C)  $\frac{5}{62}$                       D)  $\frac{57}{5}$
- 33) According to a recent study, 10 out of 15 visits to a hospital emergency room were for an injury. What fraction of emergency room visits are NOT injury-related? 33) \_\_\_\_\_  
 A)  $\frac{10}{5}$                       B)  $\frac{5}{15}$                       C)  $\frac{15}{5}$                       D)  $\frac{5}{10}$
- 34) There are 100 centimeters in a meter. What fractional part of a meter does 94 centimeters represent? 34) \_\_\_\_\_  
 A)  $\frac{6}{94}$                       B)  $\frac{94}{6}$                       C)  $\frac{100}{94}$                       D)  $\frac{94}{100}$
- 35) In a composition class containing 63 students, there are 19 freshmen, 12 sophomores, 6 juniors, and the rest are seniors. What fraction of the class is seniors? 35) \_\_\_\_\_  
 A)  $\frac{1}{4}$                       B)  $\frac{63}{26}$                       C)  $\frac{26}{94}$                       D)  $\frac{26}{63}$
- 36) At Smith's Apple Orchard one day, 56 people were picking apples, 13 people were picking pumpkins, and 31 people were picking raspberries. What fractional part of the people were picking pumpkins? 36) \_\_\_\_\_  
 A)  $\frac{13}{100}$                       B)  $\frac{56}{100}$                       C)  $\frac{13}{87}$                       D)  $\frac{100}{13}$
- 37) At Smith's Apple Orchard one day, 60 people were picking apples, 23 people were picking pumpkins, and 17 people were picking raspberries. What fractional part of the people were picking either apples or pumpkins? 37) \_\_\_\_\_  
 A)



$\frac{83}{17}$

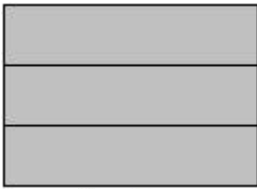
B)  $\frac{60}{100}$

C)  $\frac{83}{100}$

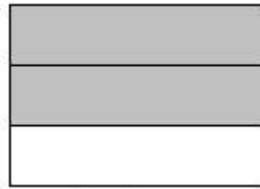
D)  $\frac{23}{100}$

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

38)



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



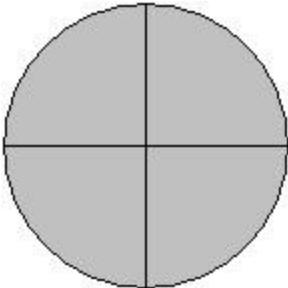
B)  $\frac{2}{1}; \frac{5}{3}$

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

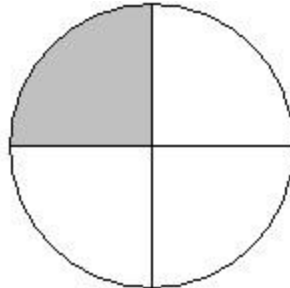
D)  $\frac{5}{1}; \frac{5}{3}$

38) \_\_\_\_\_

39)



A)  $\frac{3}{1}; \frac{5}{4}$



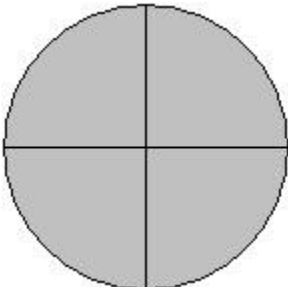
B)  $\frac{1}{1}; \frac{5}{4}$

C)  $\frac{1}{2}; \frac{5}{4}$

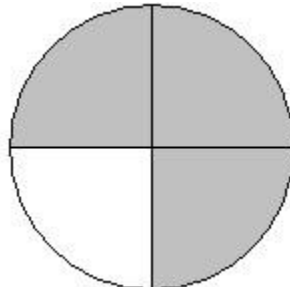
D)  $\frac{5}{1}; \frac{5}{4}$

39) \_\_\_\_\_

40)



A)  $\frac{3}{1}; \frac{7}{4}$



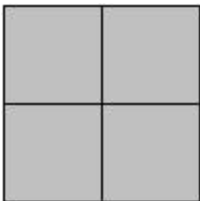
B)  $\frac{7}{1}; \frac{7}{4}$

C)  $\frac{3}{2}; \frac{7}{4}$

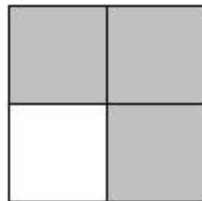
D)  $\frac{3}{4}; \frac{7}{4}$

40) \_\_\_\_\_

41)



A)  $\frac{3}{4}; \frac{7}{4}$



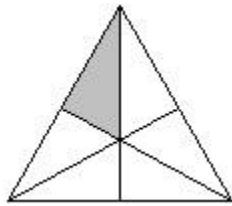
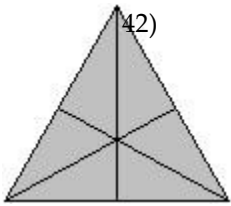
B)  $\frac{7}{1}; \frac{7}{4}$

C)  $\frac{7}{2}; \frac{7}{4}$

D)  $\frac{3}{1}; \frac{7}{4}$

41) \_\_\_\_\_

42)



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—

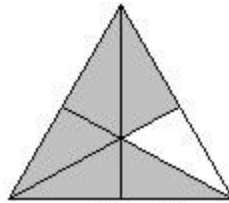
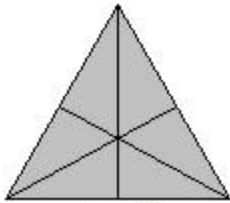
A)  $1\frac{7}{12}; \frac{7}{6}$

B)  $1\frac{1}{12}; \frac{7}{6}$

C)  $1\frac{1}{5}; \frac{7}{6}$

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

43)



43) \_\_\_\_\_

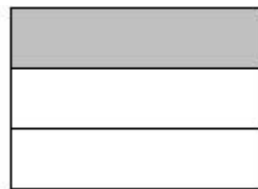
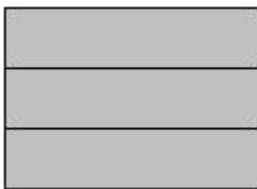
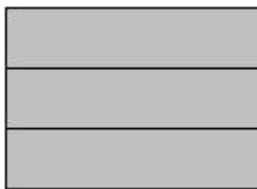
A)  $1\frac{5}{6}; \frac{11}{6}$

B)  $2\frac{11}{12}; \frac{11}{6}$

C)  $2\frac{5}{6}; \frac{11}{6}$

D)  $1\frac{11}{12}; \frac{11}{6}$

44)



44) \_\_\_\_\_

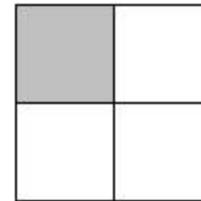
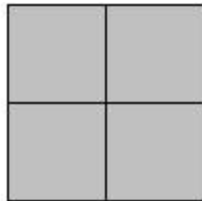
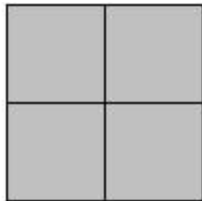
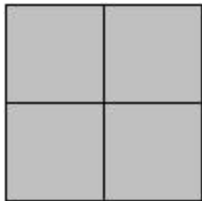
A)  $2\frac{7}{9}; \frac{7}{3}$

B)  $2\frac{1}{3}; \frac{7}{3}$

C)  $3\frac{1}{3}; \frac{7}{3}$

D)  $2\frac{1}{9}; \frac{7}{3}$

45)



45) \_\_\_\_\_

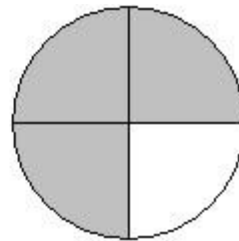
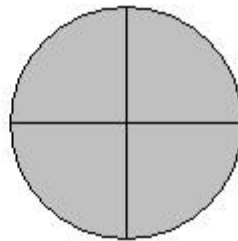
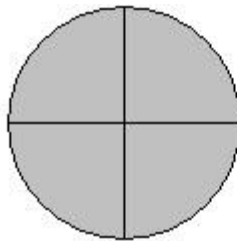
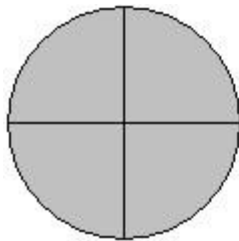
A)  $3\frac{13}{16}; \frac{13}{4}$

B)  $1\frac{1}{4}; \frac{13}{4}$

C)  $1\frac{1}{3}; \frac{13}{4}$

D)  $3\frac{13}{16}; \frac{13}{4}$

46)



46) \_\_\_\_\_

A)  $3\frac{15}{16}; \frac{15}{4}$

B)  $3\frac{3}{4}; \frac{15}{4}$

C)  $3\frac{3}{4}; \frac{15}{4}$

D)  $3\frac{1}{4}; \frac{13}{4}$

Write the mixed number as an improper fraction.

47)

47)  $\frac{8}{5^9}$  \_\_\_\_\_  
 A)  $\frac{45}{9}$       B)  $\frac{45}{8}$       C)  $\frac{53}{8}$       D)  $\frac{53}{9}$

48)  $\frac{5}{4^7}$  48) \_\_\_\_\_  
 A)  $\frac{33}{7}$       B)  $\frac{28}{7}$       C)  $\frac{28}{5}$       D)  $\frac{33}{5}$

49)  $\frac{3}{2^7}$  49) \_\_\_\_\_  
 A)  $\frac{17}{7}$       B)  $\frac{14}{3}$       C)  $\frac{14}{7}$       D)  $\frac{17}{3}$

50)  $\frac{2}{5^7}$  50) \_\_\_\_\_  
 A)  $\frac{37}{7}$       B)  $\frac{35}{2}$       C)  $\frac{35}{7}$       D)  $\frac{37}{2}$

51)  $\frac{14}{17^{23}}$  51) \_\_\_\_\_  
 A)  $\frac{405}{23}$       B) 31      C)  $\frac{238}{23}$       D) 238

52)  $\frac{4}{247^6}$  52) \_\_\_\_\_  
 A) 988      B)  $\frac{743}{3}$       C)  $\frac{494}{3}$       D) 251

**Write the improper fraction as a mixed or whole number.**

53)  $\frac{19}{3}$  53) \_\_\_\_\_  
 A)  $\frac{1}{3}$       B)  $\frac{1}{5^7}$       C)  $\frac{1}{6^3}$       D)  $\frac{1}{7^3}$

54)  $\frac{22}{5}$  54) \_\_\_\_\_  
 A)  $\frac{2}{3^5}$       B)  $\frac{2}{5^5}$       C)  $\frac{2}{4^5}$       D)  $\frac{2}{7^4}$

55)  $\frac{10}{3}$  55) \_\_\_\_\_  
 A)  $\frac{1}{3^7}$       B)  $\frac{1}{4^3}$       C)  $\frac{1}{3^3}$       D)  $\frac{1}{2^3}$

56)  $\frac{105}{7}$  56) \_\_\_\_\_

A)  $\frac{15}{2}$

B) 106

C) 15

D) 104

57)  $\frac{78}{7}$

57) \_\_\_\_\_

A)  $\frac{7}{78}$

B)  $\frac{78}{78}$

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

D)  $\frac{7}{78}$

58)  $\frac{230}{11}$

58) \_\_\_\_\_

A)  $\frac{230}{230}$

B)  $\frac{10}{20}$

C)  $\frac{11}{230}$

D)  $\frac{11}{230}$

59)  $\frac{166}{159}$

59) \_\_\_\_\_

A)  $1\frac{7}{166}$

B)  $159\frac{7}{159}$

C)  $1\frac{7}{159}$

D)  $1\frac{159}{7}$

60)  $\frac{827}{126}$

60) \_\_\_\_\_

A)  $6\frac{70}{126}$

B)  $7\frac{71}{126}$

C)  $5\frac{71}{126}$

D)  $\frac{71}{6}$

**List all the factors of the number.**

61) 30

61) \_\_\_\_\_

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

B) 1, 5, 6, 30

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

D) 5, 6, 10, 30

62) 28

62) \_\_\_\_\_

A) 1, 2, 7, 14, 28

B) 2, 7, 14, 28

C) 1, 2, 4, 7, 8, 14, 28

D) 1, 2, 4, 7, 14, 28

63) 36

63) \_\_\_\_\_

A) 1, 2, 3, 4, 6, 9, 12, 18, 36

B) 1, 2, 3, 4, 5, 6, 9, 10, 12, 18, 36

C) 2, 4, 6, 12, 18, 36

D) 1, 2, 4, 6, 12, 18, 36

64) 45

64) \_\_\_\_\_

A) 1, 2, 3, 5, 9, 15, 30, 45

B) 1, 3, 5, 9, 15, 30, 45

C) 1, 3, 5, 9, 15, 45

D) 1, 3, 5, 15, 45

65) 56

65) \_\_\_\_\_

A) 1, 2, 3, 4, 7, 8, 14, 18, 28, 56

B) 1, 2, 4, 7, 8, 14, 18, 28, 56

C) 2, 4, 7, 8, 14, 28

D) 1, 2, 4, 7, 8, 14, 28, 56

66) 63

66) \_\_\_\_\_

A) 1, 2, 3, 7, 9, 21, 36, 63

B) 1, 3, 5, 7, 9, 11, 21, 63

C) 3, 5, 7, 9, 11, 21, 63

D) 1, 3, 7, 9, 21, 63

67) 66

67) \_\_\_\_\_

A) 1, 2, 3, 6, 11, 22, 33, 66

B) 1, 3, 11, 22, 33, 66

C) 1, 2, 3, 9, 11, 22, 33, 66

D) 1, 2, 3, 4, 11, 16, 22, 33, 66

68) 70  
A) 1, 2, 5, 7, 10, 14, 35, 70  
C) 1, 2, 5, 7, 35, 70  
B) 1, 2, 3, 5, 7, 9, 15, 35, 70  
D) 1, 3, 5, 7, 9, 15, 20, 35, 70  
68) \_\_\_\_\_

69) 7  
A) no factors  
B) 7  
C) 1  
D) 1, 7  
69) \_\_\_\_\_

70) 10  
A) 2, 5, 10  
B) 2, 5  
C) 1, 2, 5, 10  
D) 1, 10  
70) \_\_\_\_\_

**Identify the number as prime or composite.**

71) 30  
A) Prime  
B) Composite  
71) \_\_\_\_\_

72) 47  
A) Composite  
B) Prime  
72) \_\_\_\_\_

73) 36  
A) Prime  
B) Composite  
73) \_\_\_\_\_

74) 163  
A) Composite  
B) Prime  
74) \_\_\_\_\_

75) 189  
A) Prime  
B) Composite  
75) \_\_\_\_\_

**Find the prime factorization of the number. Write any repeated factors using exponents.**

76) 42  
A)  $6 \cdot 7$   
B)  $2 \cdot 3 \cdot 7$   
C)  $3^2 \cdot 2$   
D)  $2^2 \cdot 7$   
76) \_\_\_\_\_

77) 123  
A)  $3 \cdot 41$   
B)  $3 \cdot 39$   
C)  $3^2 \cdot 41$   
D)  $3^2$   
77) \_\_\_\_\_

78) 32  
A)  $5^2$   
B)  $2^5$   
C)  $2 \cdot 5$   
D) Prime  
78) \_\_\_\_\_

79) 28  
A)  $4 \cdot 2$   
B)  $7^2$   
C)  $4 \cdot 7$   
D)  $2^2 \cdot 7$   
79) \_\_\_\_\_

80) 175  
A)  $5 \cdot 7^2$   
B)  $5 \cdot 7$   
C)  $5^2 \cdot 7$   
D)  $5^3 \cdot 7$   
80) \_\_\_\_\_

81) 168  
A)  $2 \cdot 3^3 \cdot 7$   
B)  $2^3 \cdot 3 \cdot 7$   
C)  $2 \cdot 3 \cdot 7$   
D)  $2^2 \cdot 3 \cdot 7$   
81) \_\_\_\_\_

82) 350  
A)  $2 \cdot 5^2 \cdot 7$   
B)  $2 \cdot 5 \cdot 7$   
C)  $14 \cdot 5^2$   
D)  $2^2 \cdot 5^2 \cdot 7$   
82) \_\_\_\_\_

83) 216  
83) \_\_\_\_\_

A)  $2^3 \cdot 3$

B)  $2 \cdot 3^3$

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

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

84) 684

A)  $3^4 \cdot 19$

B)  $2^2 \cdot 3^2 \cdot 19$

C)  $2^4 \cdot 19$

D)  $2^3 \cdot 3^2 \cdot 19$

84) \_\_\_\_\_

85) 1400

A)  $2 \cdot 5^4 \cdot 7$

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

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

D)  $2^4 \cdot 5 \cdot 7$

85) \_\_\_\_\_

86) 946

A)  $22 \cdot 43$

B)  $11^2 \cdot 43$

C)  $2 \cdot 11 \cdot 43$

D)  $2^2 \cdot 43$

86) \_\_\_\_\_

87) 95

A)  $6 \cdot 21$

B)  $5^2 \cdot 19$

C)  $5 \cdot 19$

D)  $18 \cdot 7$

87) \_\_\_\_\_

88) 5800

A)  $23 \cdot 52 \cdot 29$

B)  $54 \cdot 29$

C)  $22 \cdot 53 \cdot 29$

D)  $24 \cdot 29$

88) \_\_\_\_\_

**Write the fraction in simplest form.**89)  $\frac{18}{27}$ 

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

B)  $\frac{18}{27}$

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

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

89) \_\_\_\_\_

90)  $\frac{70}{126}$ 

A)  $\frac{70}{126}$

B)  $\frac{5}{14}$

C)  $\frac{14}{9}$

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

90) \_\_\_\_\_

91)  $\frac{11}{27}$ 

A)  $\frac{11}{27}$

B)  $\frac{13}{5}$

C)  $\frac{5}{13}$

D)  $\frac{1}{27}$

91) \_\_\_\_\_

92)  $\frac{30}{50}$ 

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

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

C)  $\frac{30}{50}$

D)  $\frac{10}{5}$

92) \_\_\_\_\_

93)  $\frac{100}{175}$ 

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

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

C)  $\frac{100}{175}$

D)  $\frac{25}{7}$

93) \_\_\_\_\_

94)  $\frac{55}{65}$ 

A)  $\frac{5}{13}$

B)  $\frac{11}{5}$

C)  $\frac{55}{65}$

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

94) \_\_\_\_\_

95)

- $\frac{182}{252}$  95) \_\_\_\_\_  
 \_\_\_\_\_
- A)  $\frac{13}{14}$  B)  $\frac{13}{18}$  C)  $\frac{14}{18}$  D)  $\frac{182}{252}$
- 96)  $\frac{304}{342}$  96) \_\_\_\_\_  
 \_\_\_\_\_
- A)  $\frac{8}{9}$  B)  $\frac{9}{8}$  C)  $\frac{304}{342}$  D)  $\frac{342}{304}$
- 97)  $\frac{32}{28}$  97) \_\_\_\_\_  
 \_\_\_\_\_
- A)  $\frac{8}{4}$  B)  $\frac{7}{4}$  C)  $\frac{4}{7}$  D)  $\frac{8}{7}$
- 98)  $\frac{220}{55}$  98) \_\_\_\_\_  
 \_\_\_\_\_
- A)  $\frac{20}{5}$  B)  $\frac{4}{11}$  C) 4 D)  $\frac{44}{11}$
- 99)  $\frac{186}{78}$  99) \_\_\_\_\_  
 \_\_\_\_\_
- A)  $\frac{31}{6}$  B)  $\frac{31}{13}$  C) 31 D)  $\frac{6}{13}$
- 100)  $\frac{870}{4785}$  100) \_\_\_\_\_  
 \_\_\_\_\_
- A)  $\frac{58}{319}$  B)  $\frac{2}{11}$  C)  $\frac{3}{11}$  D)  $\frac{87}{319}$

**Determine whether the pair of fractions is equivalent.**

- 101)  $\frac{5}{6}$  and  $\frac{30}{36}$  101) \_\_\_\_\_  
 A) not equivalent B) equivalent
- 102)  $\frac{6}{9}$  and  $\frac{96}{63}$  102) \_\_\_\_\_  
 A) not equivalent B) equivalent
- 103)  $\frac{4}{7}$  and  $\frac{12}{15}$  103) \_\_\_\_\_  
 A) equivalent B) not equivalent
- 104)  $\frac{1}{4}$  and  $\frac{3}{12}$  104) \_\_\_\_\_  
 A) not equivalent B) equivalent
- 105)  $\frac{5}{60}$  and  $\frac{4}{48}$  105) \_\_\_\_\_

A) not equivalent

B) equivalent

106)  $\frac{24}{27}$  and  $\frac{32}{45}$

106) \_\_\_\_\_

A) not equivalent

B) equivalent

**Solve. Write the fractions in simplest form.**

107) There are 5280 feet in a mile. What fraction of a mile is represented by 54 feet?

107) \_\_\_\_\_

A)  $\frac{9}{871}$

B)  $\frac{3}{1760}$

C)  $\frac{9}{880}$

D)  $\frac{54}{5280}$

108) There are 100 centimeters in 1 meter. What fraction of a meter is 42 centimeters?

108) \_\_\_\_\_

A)  $\frac{21}{50}$

B)  $\frac{21}{29}$

C)  $\frac{42}{100}$

D)  $\frac{1}{25}$

109) A company employs 225,000 employees worldwide. About 108,000 employees work in the United States. What fraction of the employees work in the United States?

109) \_\_\_\_\_

A)  $\frac{6}{125}$

B)  $\frac{12}{25}$

C)  $\frac{24}{5}$

D)  $\frac{108,000}{225,000}$

110) A company employs 135,000 employees worldwide. About 12,000 employees work in the United States. What fraction of the employees do NOT work in the United States?

110) \_\_\_\_\_

A)  $\frac{123,000}{135,000}$

B)  $\frac{41}{45}$

C)  $\frac{12,000}{135,000}$

D)  $\frac{4}{45}$

111) There are 6600 spectators at a ball game. If 4200 are females, what fraction of the spectators are females?

111) \_\_\_\_\_

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

B)  $\frac{4200}{\text{females}}$

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

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

112) There are 5600 employees at a company. If 2000 are male, what fraction of the employees are female?

112) \_\_\_\_\_

A)  $\frac{9}{14}$

B)  $\frac{5}{14}$

C)  $\frac{2000}{5600}$

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

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

113) \_\_\_\_\_

Distribution of Houses by Style	
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 ranch homes?

A)  $\frac{9}{50}$

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

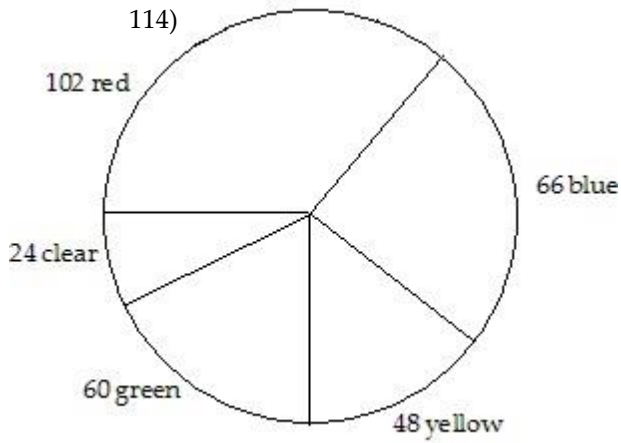
C)  $\frac{19}{100}$

D)  $\frac{19}{81}$

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 Luke has: 102 are red, 66 are blue, 48 are yellow, 60 are green, and 24 are clear. What fraction of the marbles are red? Write the fraction

in simplest form.





A)  $\frac{17}{50}$

B)  $\frac{17}{33}$

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

D)  $\frac{102}{300}$

**Multiply. Write the answer in simplest form.**

115)  $\frac{1}{9} \cdot \frac{5}{6}$

115) \_\_\_\_\_

A)  $\frac{5}{54}$

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

C)  $\frac{15}{2}$

D)  $\frac{54}{5}$

116)  $\frac{4}{5} \cdot \frac{23}{25}$

116) \_\_\_\_\_

A)  $\frac{9}{10}$

B)  $\frac{92}{125}$

C)  $\frac{20}{23}$

D)  $\frac{29}{28}$

117)  $\frac{2}{6} \cdot \frac{14}{25}$

117) \_\_\_\_\_

A)  $\frac{25}{42}$

B)  $\frac{14}{75}$

C)  $\frac{16}{31}$

D)  $\frac{27}{20}$

118)  $\frac{3}{5} \cdot \frac{2}{3} \cdot \frac{1}{4}$

118) \_\_\_\_\_

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

B)  $\frac{1}{12}$

C)  $\frac{9}{40}$

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

119)  $\frac{6}{2} \cdot \frac{17}{23}$

119) \_\_\_\_\_

A)  $\frac{23}{25}$

B)  $\frac{69}{17}$

C)  $\frac{51}{23}$

D)  $\frac{29}{19}$

120)  $\frac{8}{1} \cdot \frac{6}{2}$

120) \_\_\_\_\_

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

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

C)  $\frac{10}{7}$

D) 24

121)

0 ·  $\frac{1}{10}$

- 121) \_\_\_\_\_  
 A) 0                                      B) 0                                      C)  $\frac{1}{10}$                                       D) undefined
- 122)  $\frac{5}{12} \cdot 0$   
 A) undefined                                      B)  $\frac{5}{12}$                                       C)  $\frac{12}{5}$                                       D) 0
- 123)  $\frac{1}{17} \cdot \frac{5}{9} \cdot \frac{3}{10}$   
 A)  $\frac{1}{102}$                                       B)  $\frac{5}{153}$                                       C)  $\frac{1}{25}$                                       D) 102
- 124)  $\frac{12}{13} \cdot 0 \cdot \frac{1}{5}$   
 A) undefined                                      B)  $\frac{14}{23}$                                       C)  $\frac{12}{65}$                                       D) 0
- 125)  $\frac{1}{4} \cdot \frac{2}{17} \cdot \frac{24}{14} \cdot \frac{28}{4}$   
 A)  $\frac{1}{34}$                                       B)  $\frac{6}{17}$                                       C)  $\frac{17}{6}$                                       D)  $\frac{56}{43}$
- 126)  $\frac{5}{2^8} \cdot 8$   
 A)  $\frac{5}{10^8}$                                       B) 21                                      C) 16                                      D) 128
- 127)  $6 \cdot 4^{\frac{13}{14}}$   
 A)  $\frac{6}{29^7}$                                       B)  $\frac{4}{10^7}$                                       C)  $\frac{4}{29^7}$                                       D)  $\frac{13}{24^{14}}$
- 128)  $\frac{2}{7} \cdot \frac{3}{8}$   
 A)  $\frac{6}{7}$                                       B)  $\frac{6}{2^7}$                                       C)  $\frac{4}{7}$                                       D)  $\frac{6}{2^{56}}$
- 129)  $\frac{4}{9} \cdot \frac{3}{8}$   
 A) 10                                      B) 12                                      C) 14                                      D) 15
- 130)  $3 \cdot 2^{\frac{13}{15}}$   
 A) 6                                      B)  $\frac{13}{6^{15}}$                                       C)  $\frac{3}{8^5}$                                       D)  $\frac{3}{7^5}$
- 122) \_\_\_\_\_
- 123) \_\_\_\_\_
- 124) \_\_\_\_\_
- 125) \_\_\_\_\_
- 126) \_\_\_\_\_
- 127) \_\_\_\_\_
- 128) \_\_\_\_\_
- 129) \_\_\_\_\_
- 130) \_\_\_\_\_

131)  $\frac{1}{5} \cdot 4 \cdot \frac{3}{8}$  131) \_\_\_\_\_  
 A)  $\frac{3}{16}$  B)  $\frac{3}{8}$  C)  $\frac{8}{16}$  D)  $\frac{3}{6}$

132)  $\frac{5}{14}$  132) \_\_\_\_\_  
 $4 \cdot 8$   
 A)  $\frac{5}{33}$  B)  $\frac{3}{33}$  C)  $\frac{3}{12}$  D)  $\frac{5}{32}$

133)  $\frac{2}{5} \cdot \frac{1}{9}$  133) \_\_\_\_\_  
 A)  $\frac{4}{15}$  B)  $\frac{2}{15}$  C)  $\frac{4}{2}$  D)  $\frac{2}{2}$

134)  $\frac{2}{7}$  134) \_\_\_\_\_  
 $42 \cdot$   
 A)  $\frac{883}{49}$  B)  $\frac{84}{7}$  C) 10 D) 12

135)  $\frac{1}{2} \cdot 3$  135) \_\_\_\_\_  
 A)  $\frac{7}{2}$  B)  $\frac{5}{4}$  C)  $\frac{3}{2}$  D)  $\frac{1}{6}$

136)  $\frac{5}{6} \cdot 1$  136) \_\_\_\_\_  
 A) 1 B)  $\frac{6}{5}$  C)  $\frac{5}{6}$  D)  $\frac{11}{13}$

137)  $\frac{11}{18}$  137) \_\_\_\_\_  
 $1 \cdot$   
 A)  $\frac{11}{18}$  B)  $\frac{18}{11}$  C)  $\frac{12}{19}$  D) 1

138)  $\frac{7}{15} \cdot 60 \cdot \frac{75}{30}$  138) \_\_\_\_\_  
 A) 60 B)  $\frac{1}{70}$  C) 70 D)  $\frac{7}{6}$

139)  $\frac{1}{2} \cdot 4 \cdot \frac{2}{3} \cdot 5 \cdot \frac{1}{3}$  139) \_\_\_\_\_  
 A)  $\frac{2}{11}$  B)  $\frac{2}{40}$  C)  $\frac{560}{9}$  D)  $\frac{1}{40}$

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

140)

$$2\frac{1}{4} \cdot 4\frac{1}{3} \quad 140)$$

A)  $\frac{77}{12}$   
 Exact:  
 Estimate: 8

B)  $\frac{77}{12}$   
 Exact:  
 Estimate: 15

C)  $\frac{39}{4}$   
 Exact:  
 Estimate: 15

D)  $\frac{39}{4}$   
 Exact:  
 Estimate: 8

$$141) 2\frac{3}{4} \cdot 3\frac{2}{3}$$

A)  $\frac{121}{12}$   
 Exact:  
 Estimate: 12

B)  $\frac{15}{2}$   
 Exact:  
 Estimate: 12

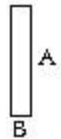
C)  $\frac{15}{2}$   
 Exact:  
 Estimate: 6

D)  $\frac{121}{12}$   
 Exact:  
 Estimate: 6

141) \_\_\_\_\_

**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).



$$A = \frac{4}{9} \text{ foot}$$

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

A)  $\frac{4}{18}$  square foot

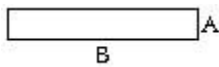
B)  $\frac{2}{9}$  square foot

C)  $\frac{5}{11}$  square foot

D)  $\frac{4}{11}$  square foot

142) \_\_\_\_\_

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



$$A = \frac{2}{9} \text{ yard}$$

$$B = 18 \text{ yards}$$

A)  $\frac{20}{9}$  square yards

B)  $\frac{164}{9}$  square yards

C)  $\frac{36}{9}$  square yards

D) 4 square yards

143) \_\_\_\_\_

144)

Rennie is saving  $\frac{3}{16}$  of her monthly income of \$ 8064 for retirement. How much money is she setting aside each month for retirement?

A) \$ 43,008

B) \$ 1512

C) \$ 504

D) \$ 168

144) \_\_\_\_\_

- 145) Maria exercises for  $1\frac{1}{5}$  hours every Saturday. She runs for  $\frac{2}{9}$  of the time that she exercises. How much time does she spend running every Saturday?  
 A)  $\frac{2}{15}$  hour      B)  $\frac{2}{45}$  hours      C)  $\frac{4}{15}$  hour      D)  $\frac{4}{15}$  hours

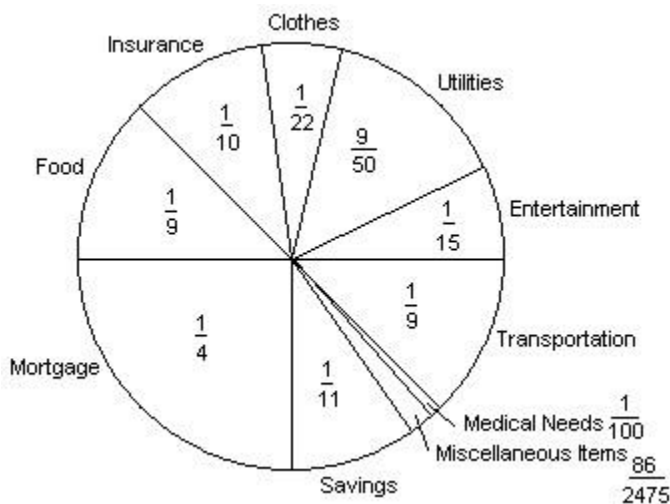
- 146) Byron rode his bicycle  $7\frac{1}{20}$  miles on each of 4 days. What is the total distance Byron rode?  
 A)  $\frac{3}{28}$  miles      B)  $\frac{1}{28}$  miles      C)  $\frac{1}{11}$  miles      D)  $\frac{1}{28}$  miles

- 147) Jennifer is building some shelves and requires 10 pieces of wood that are each  $1\frac{1}{5}$  feet long. What is the total length of wood that Jennifer needs?  
 A) 12 feet      B) 50 feet      C)  $11\frac{1}{5}$  feet      D) 10 feet

- 148) A rectangular flower bed in front of a building measures  $5\frac{1}{3}$  feet by  $1\frac{7}{8}$  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) 10 square feet      B) 13 square feet      C) 11 square feet      D)  $5\frac{7}{24}$  square feet

- 149) A recipe calls for  $\frac{3}{5}$  of a pound of sausage. How much sausage should be used if only  $\frac{1}{4}$  of the recipe is being made?  
 A)  $\frac{12}{5}$  lb      B)  $\frac{3}{20}$  lb      C)  $\frac{4}{9}$  lb      D)  $\frac{1}{3}$  lb

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



If the Suarez family spends their income last month to the nearest cent, how much money did they

- 150) \_\_\_\_\_  
 A) \$ 309.09                      B) \$ 850.00                      C) \$ 154.53                      D) \$ 340.00
- 151) Find  $\frac{1}{16}$  of 112.                      151) \_\_\_\_\_  
 A) 1792                      B) 7                      C) 16                      D)  $\frac{1}{1792}$
- 152) Find  $\frac{13}{14}$  of 84.                      152) \_\_\_\_\_  
 A) 78                      B)  $\frac{1176}{13}$                       C) 84                      D)  $\frac{13}{1176}$

**Find the reciprocal of the number.**

- 153)  $\frac{5}{7}$                       153) \_\_\_\_\_  
 A)  $\frac{1}{5}$                       B)  $\frac{7}{5}$                       C)  $\frac{7}{1}$                       D) 7
- 154)  $\frac{1}{3}$                       154) \_\_\_\_\_  
 A) 0                      B) 1                      C) 3                      D)  $\frac{1}{3}$
- 155)  $\frac{1}{14}$                       155) \_\_\_\_\_  
 A)  $\frac{1}{14}$                       B) 0                      C) 1                      D) 14
- 156) 2                      156) \_\_\_\_\_  
 A) 1                      B)  $\frac{2}{1}$                       C) 2                      D)  $\frac{1}{2}$
- 157) 20                      157) \_\_\_\_\_  
 A) 1                      B)  $\frac{1}{20}$                       C) 20                      D)  $\frac{20}{1}$
- 158)  $\frac{18}{7}$                       158) \_\_\_\_\_  
 A)  $\frac{7}{18}$                       B) 7                      C)  $\frac{7}{1}$                       D)  $\frac{1}{18}$

**Divide. Write the answer in simplest form.**

- 159)  $\frac{2}{5} \div \frac{6}{7}$                       159) \_\_\_\_\_  
 A)  $\frac{7}{15}$                       B)  $\frac{3}{10}$                       C)  $\frac{12}{35}$                       D)  $\frac{2}{3}$
- 160)  $\frac{4}{11} \div \frac{3}{19}$                       160) \_\_\_\_\_

A)  $\frac{12}{209}$

B)  $\frac{5}{17 \cdot 12}$

C)  $\frac{7}{30}$

D)  $\frac{76}{33}$

161)  $\frac{1}{11} \div \frac{5}{14}$

161) \_\_\_\_\_

A)  $\frac{13}{55}$

B)  $\frac{14}{53}$

C)  $\frac{14}{55}$

D)  $\frac{12}{55}$

162)  $\frac{5}{17} \div \frac{7}{12}$

162) \_\_\_\_\_

A)  $\frac{20}{39}$

B)  $\frac{59}{119}$

C)  $\frac{58}{119}$

D)  $\frac{60}{119}$

163)  $\frac{1}{17} \div \frac{1}{11}$

163) \_\_\_\_\_

A)  $\frac{11}{15}$

B)  $\frac{9}{17}$

C)  $\frac{10}{17}$

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

164)  $\frac{1}{11} \div \frac{5}{13}$

164) \_\_\_\_\_

A)  $\frac{13}{55}$

B)  $\frac{13}{53}$

C)  $\frac{11}{55}$

D)  $\frac{12}{55}$

165)  $\frac{1}{7} \div \frac{16}{15}$

165) \_\_\_\_\_

A)  $\frac{16}{23}$

B)  $\frac{17}{22}$

C)  $\frac{15}{112}$

D)  $\frac{16}{105}$

166)  $\frac{27}{8} \div \frac{1}{8}$

166) \_\_\_\_\_

A) 28

B) 27

C)  $\frac{51}{2}$

D) 26

**Solve.**

167)

$\frac{8}{11}$

167) \_\_\_\_\_

How many  $\frac{8}{11}$  pound boxes of cereal can be made from 12,320 pound of cereal?

A) 8960 boxes

B) 16,940 boxes

C) 1540 boxes

D) 1120 boxes

168)

$\frac{1}{2}$

168) \_\_\_\_\_

On a recent trip, Asha drove 252 miles on  $10 \frac{1}{2}$  gallons of gasoline. How many miles per gallon did she average?

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

B) 24 miles per gallon

1260  $\frac{1}{2}$  miles per gallon

C) 2646 miles per gallon

D)  $\frac{1}{24}$  miles per gallon

169)

$\frac{3}{7}$

 $\frac{2}{7}$  cups of oilMark is filling decorative oil lamps for a reception. Each lamp can hold  $\frac{3}{7}$  cup of oil. Mark has 4

available 169)

. How many oil lamps can Mark fill completely?

- A)  $\frac{1}{8^2}$  oil lamps      B) 11 oil lamps      C) 9 oil lamps      D) 10 oil lamps

170)

Ted walks around a lake on a path that is  $5\frac{4}{7}$  miles long. It takes him  $5\frac{2}{7}$  hours to complete his walk. What is his average speed (in miles per hour)?

- A)  $\frac{3}{1^37}$  miles per hour      B)  $\frac{2}{1^37}$  miles per hour  
 C)  $\frac{2}{2^37}$  miles per hour      D)  $\frac{2}{1^36}$  miles per hour

170) \_\_\_\_\_

171)

Toni needs to cut a  $7\frac{4}{9}$ -foot board into 6 equal pieces. How long should each piece be?

- A)  $\frac{13}{1^54}$  ft      B)  $\frac{2}{44^3}$  ft      C)  $\frac{2}{7^27}$  ft      D)  $\frac{11}{1^18}$  ft

171) \_\_\_\_\_

**Divide. Write the answer in simplest form.**

172)

$$\frac{2}{6} \div 0$$

- A)  $\frac{1}{3}$       B) 3      C) 0      D) Undefined

172) \_\_\_\_\_

173)

$$\frac{3}{7} \div 0$$

- A) Undefined      B)  $\frac{3}{56}$       C) 0      D)  $\frac{7}{24}$

173) \_\_\_\_\_

174)

$$\frac{2}{3} \div \frac{2}{3}$$

- A)  $\frac{4}{9}$       B) 1      C)  $\frac{2}{3}$       D)  $\frac{3}{2}$

174) \_\_\_\_\_

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

175)

$$\frac{77}{16} \cdot \frac{64}{121} \div \frac{7}{11}$$

- A)  $\frac{5929}{1024}$       B)  $\frac{196}{121}$       C)  $\frac{1}{4}$       D) 4

175) \_\_\_\_\_

**Divide. Write the answer in simplest form.**

176)



$$176) \frac{\frac{1}{3}}{5 \frac{2}{7} \div 2}$$

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

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

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

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

\_\_\_\_  
-

$$177) \frac{3}{5 \frac{7}{7} \div 2 \frac{2}{5}}$$

A)  $\frac{12}{2^{42}}$

B)  $\frac{11}{2^{41}}$

C)  $\frac{11}{2^{42}}$

D)  $\frac{11}{3^{42}}$

177) \_\_\_\_

$$178) \frac{12 \div 1}{\frac{1}{3}}$$

A) 10

B)  $\frac{1}{7^2}$

C) 9

D) 8

178) \_\_\_\_

$$179) \frac{2}{2^9 \div 10}$$

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

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

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

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

179) \_\_\_\_

$$180) \frac{1}{3 \frac{8}{8} \div 1 \frac{3}{5}}$$

A)  $\frac{61}{1^{64}}$

B)  $\frac{61}{1^{63}}$

C)  $\frac{61}{2^{64}}$

D)  $\frac{62}{1^{64}}$

180) \_\_\_\_

$$181) \frac{1}{1 \frac{7}{7} \div \frac{1}{7}}$$

A) 8

B) 7

C)  $\frac{1}{6^2}$

D) 9

181) \_\_\_\_

$$182) \frac{1}{\frac{1}{4} \div 3}$$

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

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

C)  $\frac{1}{12}$

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

182) \_\_\_\_

$$183) \frac{46 \div}{\frac{23}{5}}$$

A) 9

B) 10

C)  $\frac{17}{2}$

D) 11

183) \_\_\_\_

$$184) \frac{7}{1 \div \frac{8}{8}}$$

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

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

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

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

184) \_\_\_\_

185)  $0 \div 2 \frac{3}{10}$  185) \_\_\_\_\_  
 A) 0 B)  $\frac{3}{10}$  C)  $\frac{3}{2}$  D) undefined

186)  $\frac{3}{19} \div 1$  186) \_\_\_\_\_  
 A)  $\frac{3}{19}$  B)  $\frac{19}{3}$  C)  $\frac{1}{5}$  D) 1

**Solve.**

187)  $\frac{2}{5}$  187) \_\_\_\_\_  
 How many  $\frac{2}{5}$  pound boxes of cereal can be made from 1580 pound of cereal?  
 A) 790 boxes B) 316 boxes C) 3950 boxes D) 632 boxes

188)  $\frac{1}{5}$  188) \_\_\_\_\_  
 On a recent trip, Asha drove 234 miles on  $12 \frac{1}{5}$  gallons of gasoline. How many miles per gallon did she average?  
 A)  $\frac{61}{1170}$  miles per gallon B)  $\frac{11}{19}$  miles per gallon  
 C)  $\frac{4}{2854}$  miles per gallon D)  $\frac{4}{561}$  miles per gallon

189)  $\frac{2}{9}$  189) \_\_\_\_\_  
 Mark is filling decorative oil lamps for a reception. Each lamp can hold  $\frac{2}{9}$  cup of oil. Mark has  $4 \frac{4}{9}$  cups of oil available. How many oil lamps can Mark fill completely?  
 A) 21 oil lamps B) 20 oil lamps C)  $\frac{1}{18}$  oil lamps D) 19 oil lamps

190)  $\frac{3}{4}$  190) \_\_\_\_\_  
 Ted walks around a lake on a path that is  $4 \frac{3}{4}$  miles long. It takes him  $3 \frac{3}{4}$  hours to complete his walk. What is his average speed (in miles per hour)?  
 A)  $\frac{4}{15}$  miles per hour B)  $\frac{4}{14}$  miles per hour  
 C)  $\frac{4}{2}$  miles per hour D)  $\frac{5}{15}$  miles per hour

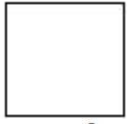
191)  $\frac{2}{7}$  191) \_\_\_\_\_  
 Toni needs to cut a  $6 \frac{2}{7}$  - foot board into 3 equal pieces. How long should each piece be?  
 A)  $\frac{2}{21}$  ft B)  $\frac{2}{21}$  ft C)  $\frac{2}{7}$  ft D)  $\frac{6}{18}$  ft

192)  $\frac{1}{10}$  \_\_\_\_\_  
 The area of the rectangle is 8 square feet. If its length is  $5 \frac{1}{10}$  feet, find its width.

$\frac{1}{10}$
5
feet

- 192) \_\_\_\_\_
- A)  $\frac{2}{20}$  ft                      B)  $\frac{1}{5}$  feet                      C)  $\frac{4}{40}$  ft                      D)  $\frac{29}{51}$  ft

- 193) \_\_\_\_\_
- The perimeter of the square is  $13\frac{2}{3}$  meters. Find the length of each side.



- A)  $\frac{2}{54}$  m                      B)  $\frac{5}{6}$  m                      C)  $\frac{1}{27}$  m                      D)  $\frac{5}{3}$  m

**Solve. Write the answer in simplest form.**

- 194) \_\_\_\_\_
- Approximately  $\frac{11}{14}$  of a worldwide corporation's employees live and work in the United States. If 34,496 employees live and work in the United States, how many employees does the corporation have worldwide?
- A) 43,904 employees                      B) 3136 employees  
C) 2464 employees                      D) 27,104 employees

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

- |                  |                   |               |                     |
|------------------|-------------------|---------------|---------------------|
| mixed number     | equivalent        | 0             | undefined           |
| composite number | improper fraction | simplest form | prime factorization |
| prime number     | proper fraction   | numerator     | denominator         |
| reciprocals      | cross products    |               |                     |

- 195) Two numbers are \_\_\_\_\_ of each other if their product is 1.                      195) \_\_\_\_\_
- A) mixed number                      B) reciprocals  
C) undefined                      D) composite number
- 196) A(n) \_\_\_\_\_ is a natural number greater than 1 that is not prime.                      196) \_\_\_\_\_
- A) composite number                      B) numerator  
C) denominator                      D) mixed number
- 197) Fractions that represent the same portion of a whole are called \_\_\_\_\_ fractions.                      197) \_\_\_\_\_
- A) equivalent                      B) prime number                      C) undefined                      D) simplest form
- 198) A(n) \_\_\_\_\_ is a fraction whose numerator is greater than or equal to its denominator.                      198) \_\_\_\_\_
- A) mixed number                      B) improper fraction  
C) prime number                      D) proper fraction
- 199) A(n) \_\_\_\_\_ is a natural number greater than 1 whose only factors are 1 and itself.                      199) \_\_\_\_\_
- A) prime number                      B) numerator  
C) mixed number                      D) composite number
- 200) A fraction is in \_\_\_\_\_ when the numerator and the denominator have no factors in common other than 1.                      200) \_\_\_\_\_
- A) 0                      B) equivalent

C) prime factorization

D) simplest form

201) A(n) \_\_\_\_\_ is one whose numerator is less than its denominator. 201) \_\_\_\_\_  
A) prime number B) proper fraction  
C) mixed number D) improper fraction

202) A(n) \_\_\_\_\_ contains a whole number part and a fraction part. 202) \_\_\_\_\_  
A) prime factorization B) composite number  
C) prime number D) mixed number

203)  $\frac{7}{9}$  203) \_\_\_\_\_  
In the fraction  $\frac{7}{9}$ , the 7 is called the \_\_\_\_\_ and the 9 is called the \_\_\_\_\_.  
A) composite number, prime number B) numerator, prime number  
C) numerator, denominator D) denominator, numerator

204) The \_\_\_\_\_ of a number is the factorization in which all the factors are prime numbers. 204) \_\_\_\_\_  
A) 0 B) simplest form  
C) prime factorization D) reciprocals

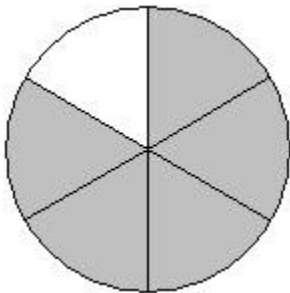
205)  $\frac{3}{0}$  205) \_\_\_\_\_  
The fraction  $\frac{3}{0}$  is \_\_\_\_\_.  
A) 0 B) prime factorization  
C) undefined D) proper fraction

206)  $\frac{0}{5}$  206) \_\_\_\_\_  
The fraction  $\frac{0}{5}$  is \_\_\_\_\_.  
A) undefined B) 0  
C) proper fraction D) prime factorization

207)  $\frac{a}{b} = \frac{c}{d}$  207) \_\_\_\_\_  
In  $\frac{a}{b} = \frac{c}{d}$ ,  $a \cdot d$  and  $b \cdot c$  are called \_\_\_\_\_.  
A) reciprocals B) simplest form  
C) cross products D) prime factorization

Write a fraction to represent the shaded area.

208) 208) \_\_\_\_\_



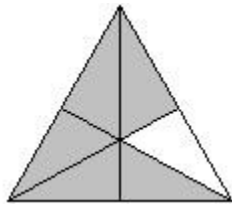
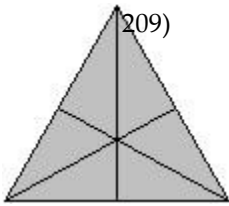
A)  $\frac{5}{1}$

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

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

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

209)



\_\_\_\_  
-

A)  $\frac{5}{1}$  or  $\frac{11}{6}$

B)  $\frac{11}{2}$  or  $\frac{11}{6}$

C)  $\frac{11}{1}$  or  $\frac{11}{6}$

D)  $\frac{5}{2}$  or  $\frac{11}{6}$

Write the mixed number as an improper fraction.

210)  $2\frac{2}{5}$

210) \_\_\_\_

A)  $\frac{25}{2}$

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

C)  $\frac{27}{5}$

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

211)  $21\frac{7}{12}$

211) \_\_\_\_

A)  $\frac{49}{4}$

B) 294

C) 35

D)  $\frac{259}{12}$

Write the improper fraction as a mixed or whole number.

212)  $\frac{43}{5}$

212) \_\_\_\_

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

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

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

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

213)  $\frac{105}{7}$

213) \_\_\_\_

A) 106

B) 15

C) 104

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

Write the fraction in simplest form.

214)  $\frac{75}{125}$

214) \_\_\_\_

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

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

C)  $\frac{75}{125}$

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

215)  $\frac{110}{170}$

215) \_\_\_\_

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

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

C)  $\frac{110}{170}$

D)  $\frac{10}{17}$

Determine whether the pair of fractions is equivalent.

216)  $\frac{7}{9}$  and  $\frac{49}{63}$

216) \_\_\_\_

A) not equivalent

B) equivalent

217)  $\frac{4}{6}$  and  $\frac{80}{12}$

217) \_\_\_\_

A) equivalent

B) not equivalent

Find the prime factorization of the number.

218) 126

A)  $2 \cdot 3^2 \cdot 7$

B)  $2^2 \cdot 3^2 \cdot 7$

C)  $14 \cdot 3^2$

D)  $2 \cdot 3 \cdot 7$

218) \_\_\_\_\_

219) 792

A)  $2^4 \cdot 3 \cdot 11$

B)  $2^3 \cdot 3^3 \cdot 11$

C)  $2^3 \cdot 3^2 \cdot 11$

D)  $2 \cdot 3^4 \cdot 11$

219) \_\_\_\_\_

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

220)  $\frac{1}{2} \div \frac{6}{7}$

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

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

C)  $\frac{7}{12}$

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

220) \_\_\_\_\_

221)  $\frac{5}{2} \cdot \frac{12}{3}$

A)  $\frac{17}{5}$

B) 10

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

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

221) \_\_\_\_\_

222)  $\frac{6}{7} \cdot 3$

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

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

C)  $\frac{27}{7}$

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

222) \_\_\_\_\_

223)  $\frac{7}{8} \cdot \frac{1}{5}$

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

B)  $\frac{40}{7}$

C)  $\frac{8}{35}$

D)  $\frac{7}{40}$

223) \_\_\_\_\_

224)  $42 \div \frac{7}{3}$

A) 17

B) 19

C) 18

D)  $\frac{33}{2}$

224) \_\_\_\_\_

225)  $\frac{3}{7} \div 8$

A)  $\frac{3}{6}$

B)  $\frac{2}{7}$

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

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

225) \_\_\_\_\_

226)  $\frac{1}{2} \cdot \frac{4}{7} \cdot \frac{5}{8}$

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

B)  $\frac{35}{64}$

C)  $\frac{5}{17}$

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

226) \_\_\_\_\_

227)  $\frac{3}{5} \div \frac{3}{5}$

A) 5

B) \_\_\_\_\_

4

227) \_\_\_\_\_

$\frac{1}{2}$

C) 7

D) 6

228)  $\frac{30}{7} \div \frac{2}{7}$

228) \_\_\_\_\_

A) 16

B) 14

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

D) 15

229)  $\frac{4}{5} \cdot \frac{3}{7}$

229) \_\_\_\_\_

A) 3

B) 4

C) 2

D) 0

230)  $12 \div 2^{\frac{2}{5}}$

230) \_\_\_\_\_

A)  $\frac{1}{3^2}$ 

B) 5

C) 6

D) 4

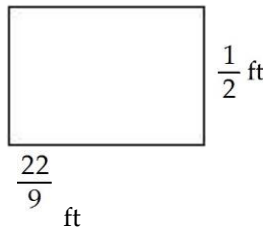
231)  $\frac{19}{4} \cdot \frac{24}{13} \cdot 6$

231) \_\_\_\_\_

A)  $\frac{114}{13}$ B)  $\frac{19}{13}$ C)  $\frac{684}{13}$ D)  $\frac{49}{52}$ **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)

232) \_\_\_\_\_

A)  $\frac{2}{9}$  square footB)  $\frac{5}{11}$  square footC)  $\frac{4}{11}$  square footD)  $\frac{4}{18}$  square foot

233)

On a recent trip, Asha drove 266 miles on  $16\frac{1}{3}$  gallons of gasoline. How many miles per gallon did she average?

233) \_\_\_\_\_

A)  $\frac{7}{114}$  miles per gallon

B) 1419 miles per gallon

C)  $\frac{2}{16}$  miles per gallonD)  $\frac{2}{4344}$  miles per gallon

234)

A rectangular flower bed in front of a building measures  $12\frac{1}{2}$  feet by  $1\frac{1}{5}$  feet. What is the total area of the flower bed?

234) \_\_\_\_\_

A) 15 square feet

B)  $\frac{1}{12}$  square feet

C) 16 square feet

D) 14 square feet

235)

Julie is saving  $\frac{2}{15}$  of her monthly income of \$ 4920 for retirement. How much money is she setting aside each month for retirement?

A) \$ 656

B) \$ 164

C) \$ 36,900

D) \$ 328

235) \_\_\_\_\_



- 1) B
- 2) A
- 3) D
- 4) B
- 5) C
- 6) B
- 7) C
- 8) C
- 9) C
- 10) A
- 11) A
- 12) A
- 13) B
- 14) B
- 15) A
- 16) B
- 17) D
- 18) A
- 19) A
- 20) A
- 21) C
- 22) B
- 23) C
- 24) C
- 25) D
- 26) B
- 27) C
- 28) D
- 29) C
- 30) B
- 31) D
- 32) C
- 33) B
- 34) D
- 35) D
- 36) A
- 37) C
- 38) B
- 39) B
- 40) A
- 41) D
- 42) D
- 43) A
- 44) B
- 45) C
- 46) C
- 47) D
- 48) A
- 49) A
- 50) A
- 51) A

- 52) B
- 53) C
- 54) C
- 55) C
- 56) C
- 57) C
- 58) B
- 59) C
- 60) D
- 61) C
- 62) D
- 63) A
- 64) C
- 65) D
- 66) D
- 67) A
- 68) A
- 69) D
- 70) C
- 71) B
- 72) B
- 73) B
- 74) B
- 75) B
- 76) B
- 77) A
- 78) B
- 79) D
- 80) C
- 81) B
- 82) A
- 83) D
- 84) B
- 85) B
- 86) C
- 87) C
- 88) A
- 89) C
- 90) D
- 91) A
- 92) B
- 93) A
- 94) D
- 95) B
- 96) A
- 97) D
- 98) C
- 99) B
- 100) B
- 101) B
- 102) A
- 103) B

104) B  
105) B  
106) A  
107) C  
108) A  
109) B  
110) B  
111) D  
112) A  
113) C  
114) A  
115) A  
116) B  
117) B  
118) D  
119) C  
120) D  
121) B  
122) D  
123) A  
124) D  
125) B  
126) B  
127) C  
128) A  
129) D  
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142) B  
143) D  
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146) D  
147) A  
148) A  
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153) B  
154) C  
155) D

156) D  
157) B  
158) A  
159) A  
160) D  
161) C  
162) D  
163) D  
164) A  
165) C  
166) B  
167) B  
168) B  
169) D  
170) B  
171) A  
172) C  
173) A  
174) B  
175) D  
176) B  
177) C  
178) C  
179) A  
180) A  
181) A  
182) C  
183) B  
184) B  
185) A  
186) A  
187) C  
188) B  
189) B  
190) A  
191) B  
192) D  
193) D  
194) A  
195) B  
196) A  
197) A  
198) B  
199) A  
200) D  
201) B  
202) D  
203) C  
204) C  
205) C  
206) B  
207) C

208) C  
209) A  
210) C  
211) D  
212) B  
213) B  
214) D  
215) A  
216) B  
217) B  
218) A  
219) C  
220) C  
221) B  
222) A  
223) D  
224) C  
225) D  
226) A  
227) D  
228) D  
229) B  
230) B  
231) C  
232) A  
233) C  
234) A  
235) A