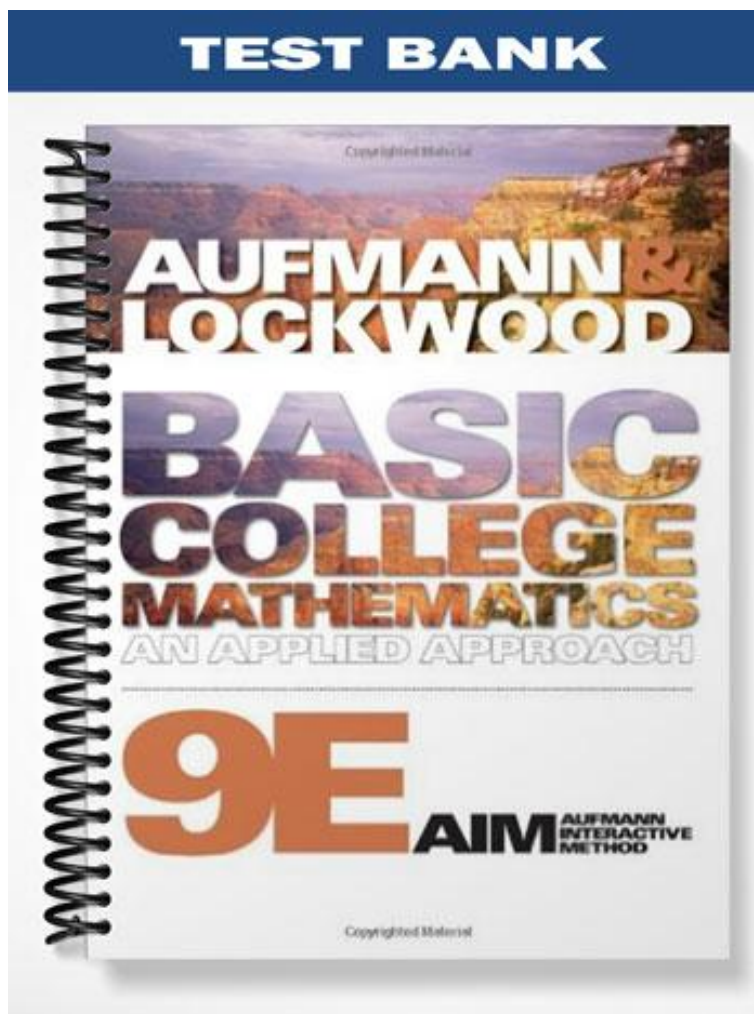


TEST BANK



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**AUFMANN &
LOCKWOOD**

**BASIC
COLLEGE
MATHEMATICS**
AN APPLIED APPROACH

9E **AIM** AUFMANN
INTERACTIVE
METHOD

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1. Find the least common multiple (LCM) of the numbers 8, 6.
 - A) 48
 - B) 2
 - C) 24
 - D) 1
 - E) 8

2. Find the least common multiple (LCM) of the numbers 10, 16.
 - A) 10
 - B) 2
 - C) 160
 - D) 1
 - E) 80

3. Find the least common multiple (LCM) of the numbers 14, 10.
 - A) 1
 - B) 2
 - C) 140
 - D) 70
 - E) 14

4. Find the least common multiple (LCM) of the numbers 4, 10, 16.
 - A) 80
 - B) 2
 - C) 640
 - D) 1
 - E) 4

5. Find the greatest common factor (GCF) of the numbers 6, 4.
 - A) 12
 - B) 2
 - C) 24
 - D) 1
 - E) 6

6. Find the greatest common factor (GCF) of the numbers 10, 24.
- A) 2
 - B) 120
 - C) 240
 - D) 1
 - E) 10
7. Find the greatest common factor (GCF) of the numbers 24, 48.
- A) 48
 - B) 24
 - C) 1152
 - D) 1
 - E) 2
8. Find the greatest common factor (GCF) of the numbers 10, 16, 34.
- A) 1360
 - B) 5440
 - C) 2
 - D) 1
 - E) 10
9. Find the greatest common factor (GCF) of the numbers 12, 18, 24.
- A) 6
 - B) 12
 - C) 18
 - D) 24
 - E) 216
10. Identify the following fraction as a proper fraction, an improper fraction, or a mixed number.
- $$\frac{23}{5}$$
- A) Proper fraction
 - B) Mixed number
 - C) Improper fraction

11. Identify the following fraction as a proper fraction, an improper fraction, or a mixed number.

$$8\frac{2}{3}$$

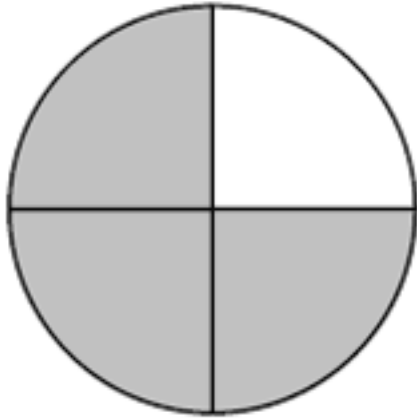
- A) Improper fraction
- B) Mixed number
- C) Proper fraction

12. Identify the following fraction as a proper fraction, an improper fraction, or a mixed number.

$$\frac{13}{16}$$

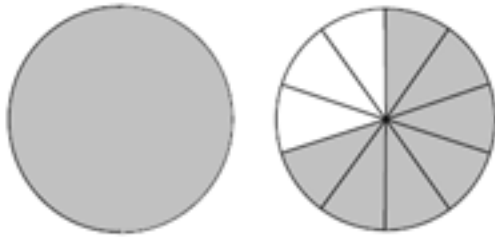
- A) Improper fraction
- B) Mixed number
- C) Proper fraction

13. Express the shaded portion of the circle as a fraction.



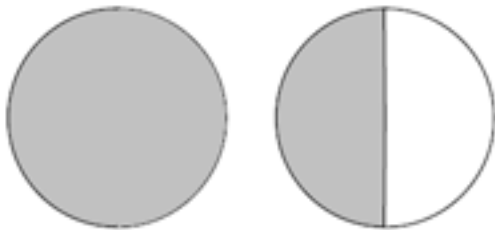
- A) $\frac{1}{2}$
- B) $\frac{1}{3}$
- C) $\frac{2}{4}$
- D) $\frac{1}{9}$
- E) $\frac{3}{4}$

14. Express the shaded portion of the circles as a mixed number.



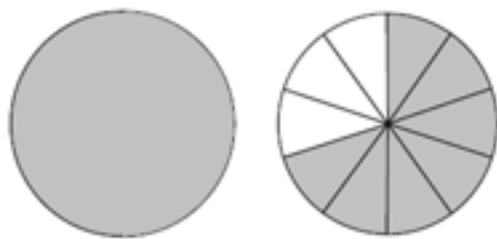
- A) $1\frac{3}{2}$
- B) $1\frac{1}{2}$
- C) $1\frac{2}{3}$
- D) $2\frac{2}{5}$
- E) $2\frac{3}{2}$

15. Express the shaded portion of the circles as an improper fraction.



- A) $\frac{2}{6}$
- B) $\frac{2}{3}$
- C) $\frac{3}{8}$
- D) $\frac{3}{2}$
- E) $\frac{8}{3}$

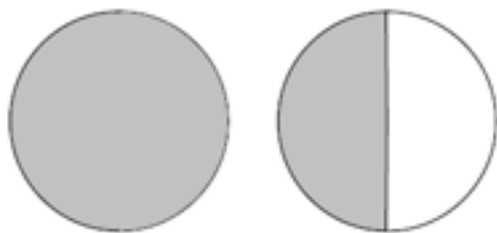
16. Shade $2\frac{2}{3}$ out of 3 circles.
A)



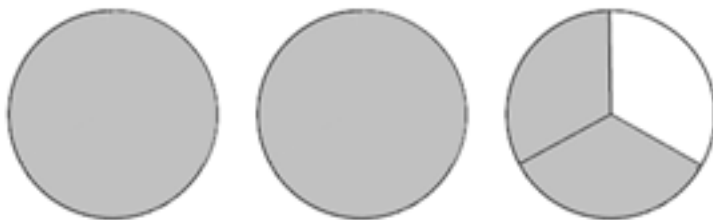
B)



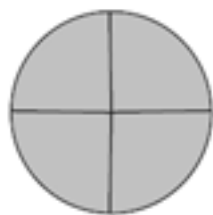
C)



D)



E)



17. Write the improper fraction $\frac{25}{7}$ as a mixed number or a whole number.
- A) $4\frac{2}{7}$
 - B) $4\frac{4}{7}$
 - C) $2\frac{2}{7}$
 - D) $2\frac{4}{7}$
 - E) $3\frac{4}{7}$

18. Write the improper fraction $\frac{28}{4}$ as a mixed number or a whole number.
- A) 7
 - B) $7\frac{3}{4}$
 - C) $6\frac{3}{8}$
 - D) $9\frac{3}{4}$
 - E) 9

19. Write the mixed number $3\frac{1}{3}$ as an improper fraction.
- A) $\frac{4}{3}$
 - B) $\frac{5}{3}$
 - C) $\frac{10}{3}$
 - D) 3
 - E) $\frac{1}{3}$

20. Write an equivalent fraction with the given denominator.

$$\frac{3}{13} = \frac{?}{52}$$

A) $\frac{3}{52}$

B) $\frac{13}{52}$

C) $\frac{16}{52}$

D) $\frac{12}{52}$

E) $\frac{19}{52}$

21. Write an equivalent fraction with the given denominator.

$$5 = \frac{?}{6}$$

A) $\frac{31}{6}$

B) $\frac{30}{6}$

C) $\frac{36}{6}$

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

E) $\frac{37}{6}$

22. Write the fraction in simplest form.

$$\frac{7}{25}$$

A) $\frac{14}{25}$

B) $\frac{7}{50}$

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

D) 1

E) 0

23. Write the fraction in simplest form.

- $\frac{4}{60}$
- A) $\frac{2}{15}$
- B) $\frac{1}{30}$
- C) $\frac{1}{15}$
- D) $\frac{60}{4}$
- E) $\frac{4}{60}$

24. Write the fraction in simplest form.

- $\frac{0}{50}$
- A) 0
- B) 1
- C) 50
- D) 25
- E) ∞

25. Write the fraction in simplest form.

- $\frac{3}{3}$
- A) $\frac{3}{3}$
- B) 9
- C) 0
- D) 6
- E) 1

26. Write the fraction in simplest form.

- $\frac{15}{24}$
A) $\frac{24}{15}$
B) $\frac{5}{16}$
C) $\frac{5}{4}$
D) $\frac{5}{8}$
E) $\frac{15}{24}$

27. Write the fraction in simplest form.

- $\frac{48}{4}$
A) 48
B) $\frac{1}{12}$
C) 4
D) $\frac{1}{4}$
E) 12

28. Add:

- $\frac{7}{17} + \frac{1}{17}$
A) $\frac{8}{34}$
B) $\frac{8}{17}$
C) $\frac{6}{17}$
D) $\frac{6}{34}$
E) 1

29. Add:

$$\frac{1}{8} + \frac{7}{8}$$

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

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

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

D) 8

E) 1

30. Add:

$$\frac{5}{7} + \frac{6}{7} + \frac{9}{7}$$

A) $2\frac{6}{7}$

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

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

D) $2\frac{3}{7}$

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

31.

Find the sum of $\frac{11}{7}$, $\frac{9}{7}$, and $\frac{9}{7}$.

A) $4\frac{1}{14}$

B) $\frac{29}{7}$

C) $\frac{1}{14}$

D) $4\frac{29}{7}$

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

32. Add:

$$\frac{7}{20} + \frac{1}{12}$$

A) $1\frac{13}{30}$

B) $\frac{13}{30}$

C) $\frac{13}{60}$

D) $2\frac{13}{60}$

E) $1\frac{13}{60}$

33. Add:

$$\frac{4}{5} + \frac{9}{10} + \frac{9}{20}$$

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

B) $2\frac{3}{10}$

C) $2\frac{3}{20}$

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

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

34. What is $\frac{1}{3}$ added to $\frac{1}{5}$?

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

B) $1\frac{8}{15}$

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

D) $2\frac{1}{4}$

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

35. Find the sum of $\frac{7}{10}$, $\frac{3}{8}$, and $\frac{3}{4}$.

A) $3\frac{33}{80}$

B) $3\frac{33}{40}$

C) $1\frac{33}{80}$

D) $1\frac{33}{40}$

E) $2\frac{33}{80}$

36. Find the total of $\frac{1}{2}$, $\frac{3}{8}$, and $\frac{1}{3}$.

A) $1\frac{5}{24}$

B) $3\frac{5}{24}$

C) $1\frac{5}{48}$

D) $3\frac{5}{48}$

E) $2\frac{5}{24}$

37. Add:

$$9\frac{5}{12} + 2\frac{3}{10}$$

A) $12\frac{43}{72}$

B) $12\frac{43}{60}$

C) $11\frac{43}{60}$

D) $11\frac{43}{72}$

E) $12\frac{43}{600}$

38. Add:

$$\begin{array}{r} 4 \\ + 6\frac{3}{8} \\ \hline \end{array}$$

A) $11\frac{9}{64}$

B) $11\frac{3}{8}$

C) $10\frac{3}{8}$

D) $10\frac{9}{64}$

E) $11\frac{1}{8}$

39. Add:

$$\begin{array}{r} 4\frac{4}{5} \\ + 8 \\ \hline \end{array}$$

- A) $12\frac{4}{5}$
- B) $13\frac{4}{5}$
- C) $13\frac{4}{5}$
- D) $12\frac{4}{5}$
- E) $13\frac{2}{5}$

40. Add:

$$2 + 2\frac{1}{2}$$

- A) $5\frac{1}{2}$
- B) $4\frac{1}{2}$
- C) $5\frac{1}{4}$
- D) $4\frac{1}{4}$
- E) $5\frac{1}{12}$

41. Add:

$$7\frac{21}{25} + 4$$

- A) 12
- B) $12\frac{21}{25}$
- C) $12\frac{21}{50}$
- D) $11\frac{21}{50}$
- E) $11\frac{21}{25}$

42.

Add: $1\frac{5}{7} + 1\frac{2}{5} + 2\frac{1}{2}$.

- A) $6\frac{43}{70}$
- B) $5\frac{43}{70}$
- C) $5\frac{43}{490}$
- D) $6\frac{43}{490}$
- E) $6\frac{43}{280}$

43.

Find the sum of $5\frac{3}{8}$ and $1\frac{5}{6}$.

- A) $7\frac{5}{18}$
- B) $8\frac{5}{24}$
- C) $8\frac{5}{18}$
- D) $7\frac{5}{24}$
- E) $8\frac{5}{32}$

44. Find $6\frac{6}{11}$ more than $3\frac{3}{4}$.
- A) $11\frac{13}{121}$
- B) $11\frac{13}{44}$
- C) $11\frac{13}{16}$
- D) $10\frac{13}{16}$
- E) $10\frac{13}{44}$
-
45. What is $6\frac{1}{4}$ added to $10\frac{2}{7}$?
- A) $17\frac{15}{28}$
- B) $16\frac{15}{28}$
- C) $17\frac{15}{16}$
- D) $16\frac{15}{16}$
- E) $17\frac{15}{49}$
-
46. Find the total of 2 , $3\frac{5}{6}$, and $1\frac{5}{8}$.
- A) $7\frac{11}{24}$
- B) $6\frac{11}{24}$
- C) $7\frac{11}{144}$
- D) $6\frac{11}{144}$
- E) $7\frac{11}{192}$

47. A table 35 inches high has a top that is $1\frac{1}{8}$ inches thick. Find the total thickness of the table top after a $2\frac{1}{16}$ inches veneer is applied.
- A) $4\frac{3}{16}$ inches
 - B) $3\frac{3}{16}$ inches
 - C) $4\frac{3}{256}$ inches
 - D) $3\frac{3}{256}$ inches
 - E) $4\frac{3}{128}$ inches

48. You are working on a part-time job for \$21 per hour. You worked $5, 1\frac{1}{2}, 4\frac{2}{3}, 1\frac{1}{2},$ and $8\frac{1}{3}$ hours during the last five days.
- a. Find the total number of hours you worked during the last five days.
 - b. Find your total wages for the five days.
- A) (a) 24 hours; (b) \$504 pay.
 - B) (a) 3 hours; (b) \$504 pay.
 - C) (a) 24 hours; (b) \$483 pay.
 - D) (a) 3 hours; (b) \$483 pay.
 - E) (a) 3 hours; (b) \$525 pay.

49.

The course of a yachting race is in the shape of a triangle with sides that measure $2\frac{7}{10}$

miles, $2\frac{1}{2}$ miles, and $5\frac{5}{8}$ miles. Find the total length of the course.

A) $12\frac{33}{40}$ miles

B) $10\frac{33}{40}$ miles

C) $10\frac{33}{80}$ miles

D) $12\frac{33}{80}$ miles

E) $9\frac{33}{80}$ miles

50. Subtract:

$$\begin{array}{r} \frac{11}{19} \\ - \frac{10}{19} \\ \hline \end{array}$$

A) $\frac{1}{19}$

B) $1\frac{1}{19}$

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

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

E) $2\frac{1}{19}$

51. Subtract:

$$\begin{array}{r} \frac{5}{11} \\ - \frac{3}{11} \\ \hline \end{array}$$

- A) $1\frac{1}{11}$
- B) $1\frac{2}{11}$
- C) $\frac{2}{11}$
- D) $\frac{1}{11}$
- E) $2\frac{2}{11}$

52. What is $\frac{5}{19}$ less than $\frac{12}{19}$?

- A) $2\frac{7}{19}$
- B) $1\frac{7}{19}$
- C) $1\frac{7}{38}$
- D) $\frac{7}{38}$
- E) $\frac{7}{19}$

53. Find the difference between $\frac{13}{21}$ and $\frac{2}{21}$.
- A) $\frac{11}{42}$
 - B) $1\frac{11}{21}$
 - C) $1\frac{11}{42}$
 - D) $\frac{11}{21}$
 - E) $\frac{11}{63}$

54. Find $\frac{15}{22}$ decreased by $\frac{9}{22}$.
- A) $\frac{3}{22}$
 - B) $\frac{1}{11}$
 - C) $\frac{3}{11}$
 - D) $\frac{3}{44}$
 - E) $\frac{3}{55}$

55. What is $\frac{11}{14}$ minus $\frac{9}{14}$?
- A) $\frac{1}{14}$
 - B) $\frac{1}{21}$
 - C) $\frac{1}{7}$
 - D) $\frac{1}{28}$
 - E) $\frac{1}{35}$

56. Subtract:

$$\begin{array}{r} \frac{6}{13} \\ - \frac{1}{5} \\ \hline \end{array}$$

- A) $\frac{17}{845}$
- B) $\frac{17}{325}$
- C) $\frac{17}{195}$
- D) $\frac{17}{65}$
- E) $\frac{17}{130}$

57. Subtract:

$$\begin{array}{r} \frac{7}{12} \\ - \frac{6}{13} \\ \hline \end{array}$$

- A) $\frac{19}{156}$
- B) $\frac{19}{144}$
- C) $\frac{19}{468}$
- D) $\frac{19}{312}$
- E) $\frac{19}{169}$

58. What is $\frac{4}{17}$ less than $\frac{8}{13}$?

- A) $\frac{84}{289}$
- B) $\frac{84}{169}$
- C) $\frac{84}{3757}$
- D) $\frac{84}{2873}$
- E) $\frac{84}{221}$

59. Find the difference between $\frac{6}{11}$ and $\frac{4}{9}$.

- A) $1\frac{5}{99}$
- B) $1\frac{5}{22}$
- C) $\frac{10}{99}$
- D) $\frac{10}{891}$
- E) $\frac{5}{99}$

60. Find $\frac{8}{11}$ decreased by $\frac{8}{15}$.

- A) $1\frac{4}{11}$
- B) $\frac{32}{165}$
- C) $1\frac{16}{165}$
- D) $\frac{32}{1815}$
- E) $\frac{16}{165}$

61. What is $\frac{9}{14}$ minus $\frac{1}{22}$?

A) $1\frac{23}{77}$

B) $1\frac{46}{77}$

C) $\frac{46}{77}$

D) $\frac{23}{77}$

E) $\frac{92}{99}$

62. Subtract:

$$\begin{array}{r} 5\frac{7}{11} \\ - 4\frac{5}{11} \\ \hline \end{array}$$

A) $1\frac{2}{7}$

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

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

D) $1\frac{2}{11}$

E) $3\frac{2}{11}$

63. Subtract:

$$\begin{array}{r} 13\frac{7}{15} \\ - 11\frac{2}{15} \\ \hline \end{array}$$

- A) $2\frac{1}{3}$
- B) $3\frac{1}{3}$
- C) $3\frac{5}{7}$
- D) $2\frac{5}{7}$
- E) $2\frac{1}{21}$

64. Subtract:

$$\begin{array}{r} 3\frac{5}{11} \\ - 1 \\ \hline \end{array}$$

- A) $3\frac{5}{11}$
- B) $1\frac{5}{11}$
- C) $1\frac{5}{22}$
- D) $2\frac{5}{22}$
- E) $2\frac{5}{11}$

65. Subtract:

$$\begin{array}{r} 8 \\ - 1\frac{8}{9} \\ \hline \end{array}$$

A) $6\frac{1}{9}$

B) $5\frac{1}{9}$

C) $5\frac{8}{9}$

D) $6\frac{8}{9}$

E) $7\frac{8}{9}$

66. Subtract:

$$\begin{array}{r} 17\frac{5}{12} \\ - 11\frac{2}{9} \\ \hline \end{array}$$

A) $5\frac{7}{36}$

B) $6\frac{7}{36}$

C) $5\frac{35}{432}$

D) $6\frac{35}{432}$

E) $5\frac{7}{180}$

67. What is $7\frac{1}{2}$ less than $11\frac{4}{11}$?

A) $3\frac{19}{22}$

B) $4\frac{19}{22}$

C) $4\frac{19}{44}$

D) $3\frac{19}{44}$

E) $3\frac{19}{66}$

68. Find the difference between $11\frac{5}{11}$ and $3\frac{1}{3}$.

A) $8\frac{8}{121}$

B) $7\frac{4}{33}$

C) $7\frac{8}{121}$

D) $7\frac{4}{165}$

E) $8\frac{4}{33}$

69. What is $9\frac{1}{3}$ minus $2\frac{2}{5}$?

A) $9\frac{14}{15}$

B) $5\frac{14}{15}$

C) $5\frac{14}{45}$

D) $6\frac{14}{15}$

E) $6\frac{14}{45}$

70.

An 11 mile walkathon has three checkpoints. The first is $3\frac{4}{7}$ miles from the starting point. The second checkpoint is $4\frac{1}{5}$ miles from the first.

a. How many miles is it from the starting point to the second checkpoint?

b. How many miles is it from the second checkpoint to the finish line?

A) (a) $7\frac{27}{70}$ miles; (b) $1\frac{8}{35}$ miles

B) (a) $7\frac{27}{35}$ miles; (b) $2\frac{8}{35}$ miles

C) (a) $7\frac{27}{70}$ miles; (b) $2\frac{4}{35}$ miles

D) (a) $7\frac{27}{35}$ miles; (b) $1\frac{8}{35}$ miles

E) (a) $7\frac{27}{35}$ miles; (b) $2\frac{4}{35}$ miles

71. A patient with high blood pressure who weighs 171 pounds is put on a diet to lose 19

pounds in three months. The patient loses $10\frac{3}{8}$ pounds the first month and $11\frac{3}{8}$ pounds the second month. How much weight must be lost the third month for the goal to be achieved?

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

B) $3\frac{1}{4}$ pounds

C) $4\frac{1}{2}$ pounds

D) $3\frac{1}{2}$ pounds

E) $5\frac{1}{2}$ pounds

72. Multiply:

$$\frac{1}{9} \times \frac{5}{9}$$

A) $\frac{7}{324}$

B) $\frac{5}{162}$

C) $\frac{7}{81}$

D) $\frac{5}{243}$

E) $\frac{5}{81}$

73. Multiply:

$$\frac{3}{4} \times \frac{1}{8}$$

A) $\frac{1}{32}$

B) $\frac{3}{64}$

C) $\frac{3}{32}$

D) $1\frac{3}{64}$

E) $1\frac{3}{32}$

74. Multiply $\frac{1}{4}$ and $\frac{13}{20}$.
- A) $\frac{13}{160}$
 - B) $\frac{13}{80}$
 - C) $\frac{41}{240}$
 - D) $1\frac{13}{160}$
 - E) $1\frac{13}{80}$

75. Find the product of $\frac{2}{5}$ and $\frac{5}{24}$.
- A) $\frac{1}{4}$
 - B) $\frac{1}{24}$
 - C) $\frac{1}{12}$
 - D) $1\frac{1}{24}$
 - E) $1\frac{1}{12}$

76. What is $\frac{3}{8}$ times $\frac{6}{13}$?
- A) $\frac{5}{26}$
 - B) $\frac{9}{104}$
 - C) $\frac{9}{52}$
 - D) $\frac{5}{104}$
 - E) $\frac{3}{52}$

77. Multiply:

$$5 \times \frac{2}{9}$$

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

B) $1\frac{2}{45}$

C) $\frac{2}{45}$

D) $5\frac{2}{9}$

E) $5\frac{1}{9}$

78. Multiply:

$$\frac{3}{4} \times 2$$

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

B) $2\frac{3}{4}$

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

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

E) $1\frac{3}{8}$

79. Multiply:

$$\frac{6}{7} \times 1\frac{1}{4}$$

- A) $1\frac{1}{7}$
- B) $1\frac{1}{28}$
- C) $1\frac{1}{14}$
- D) $1\frac{3}{28}$
- E) $1\frac{3}{14}$

80. Multiply:

$$4\frac{7}{9} \times \frac{1}{3}$$

- A) $1\frac{8}{27}$
- B) $1\frac{16}{27}$
- C) $1\frac{50}{81}$
- D) $1\frac{26}{81}$
- E) $1\frac{52}{81}$

81. Multiply:

$$6 \times 3\frac{3}{7}$$

A) $20\frac{4}{7}$

B) $6\frac{4}{7}$

C) $20\frac{3}{7}$

D) $6\frac{3}{7}$

E) $20\frac{3}{14}$

82. Multiply:

$$3 \times 3\frac{3}{8}$$

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

B) $3\frac{1}{8}$

C) $10\frac{3}{8}$

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

E) $10\frac{1}{8}$

83. Multiply:

$$2\frac{2}{3} \times 5$$

A) $13\frac{4}{15}$

B) $13\frac{1}{3}$

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

D) $13\frac{2}{3}$

E) $5\frac{4}{15}$

84. Multiply:

$$6\frac{1}{5} \times 2$$

A) $2\frac{1}{5}$

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

C) $12\frac{3}{5}$

D) $12\frac{2}{5}$

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

85. Multiply:

$$4\frac{2}{7} \times 0$$

A) $4\frac{2}{7}$

B) 1

C) 0

D) Undefined

E) 14

86. Multiply:

$$2\frac{5}{9} \times 1\frac{1}{5}$$

- A) $3\frac{7}{45}$
- B) $3\frac{1}{30}$
- C) $3\frac{1}{9}$
- D) $3\frac{7}{90}$
- E) $3\frac{1}{15}$

87.

Multiply $2\frac{1}{2}$ and $3\frac{3}{8}$.

- A) $8\frac{7}{32}$
- B) $8\frac{7}{16}$
- C) $8\frac{9}{16}$
- D) $8\frac{11}{32}$
- E) $8\frac{11}{16}$

88.

Find the product of $3\frac{2}{11}$ and $\frac{1}{3}$.

- A) $1\frac{1}{11}$
- B) $1\frac{1}{33}$
- C) $1\frac{4}{33}$
- D) $1\frac{2}{33}$
- E) $1\frac{2}{11}$

89. What is $4\frac{2}{3}$ times $5\frac{1}{6}$?

A) $24\frac{1}{9}$

B) $24\frac{1}{18}$

C) $24\frac{4}{27}$

D) $24\frac{5}{54}$

E) $24\frac{5}{27}$

90. Salmon costs \$4 per pound. Find the cost of $5\frac{1}{3}$ pounds of salmon.

A) \$22.00

B) \$19.00

C) \$23.00

D) \$22.75

E) \$23.75

91. The perimeter of a square is equal to 4 times the length of a side of the square. Find the

perimeter of a square whose side measures $11\frac{5}{8}$ inches.

A) $46\frac{1}{4}$ inches

B) $46\frac{1}{2}$ inches

C) $45\frac{1}{2}$ inches

D) $45\frac{1}{4}$ inches

E) $45\frac{1}{8}$ inches

92. The area of a rectangle is equal to the product of the length of the rectangle times its width. Find the area of a rectangle that has a length of $4\frac{2}{5}$ miles and a width of $2\frac{2}{5}$ miles. The area will be in square miles.

- A) $10\frac{8}{25}$ sq mi
- B) $10\frac{7}{25}$ sq mi
- C) $10\frac{3}{5}$ sq mi
- D) $10\frac{14}{25}$ sq mi
- E) $10\frac{16}{25}$ sq mi

93. The Booster Club is making 24 capes for the members of the high school marching band. Each cape is $1\frac{1}{8}$ yards of material at a cost of \$8 per yard. Find the total cost of the material.

- A) \$315
- B) \$7
- C) \$192
- D) \$15
- E) \$360

94. Divide:

$$0 \div \frac{5}{6}$$

- A) 24
- B) 1
- C) Undefined
- D) 0
- E) $\frac{5}{6}$

95. Divide:

$$\frac{1}{6} \div \frac{1}{24}$$

- A) $\frac{1}{144}$
- B) 4
- C) 0
- D) Undefined
- E) $\frac{1}{288}$

96. Divide:

$$\frac{1}{3} \div \frac{2}{3}$$

- A) $\frac{1}{2}$
- B) $\frac{2}{9}$
- C) $\frac{1}{4}$
- D) $\frac{4}{9}$
- E) $\frac{1}{6}$

97. Divide:

$$\frac{3}{5} \div \frac{5}{36}$$

- A) $4\frac{4}{25}$
- B) $\frac{1}{12}$
- C) $4\frac{8}{25}$
- D) $\frac{1}{6}$
- E) $4\frac{16}{25}$

98. Divide:

$$\frac{8}{6} \div \frac{10}{7}$$

- A) $\frac{15}{14}$
- B) $\frac{40}{21}$
- C) $\frac{14}{15}$
- D) 1
- E) $\frac{21}{40}$

99. Divide $\frac{13}{18}$ by $\frac{2}{3}$.

- A) $1\frac{1}{6}$
- B) $\frac{13}{27}$
- C) $1\frac{1}{24}$
- D) $\frac{26}{27}$
- E) $1\frac{1}{12}$

100. Find the quotient of $\frac{1}{4}$ and $\frac{7}{40}$.

- A) $\frac{7}{160}$
- B) $1\frac{3}{7}$
- C) $1\frac{3}{14}$
- D) $\frac{7}{80}$
- E) $1\frac{6}{7}$

101. Divide:

$$20 \div \frac{2}{3}$$

- A) $13\frac{2}{3}$
- B) $13\frac{1}{3}$
- C) $21\frac{1}{2}$
- D) 30
- E) $1\frac{1}{2}$

102. Divide:

$$\frac{1}{2} \div 20$$

- A) $\frac{1}{8}$
- B) 18
- C) $\frac{1}{160}$
- D) 36
- E) $\frac{1}{40}$

103. Divide:

$$5 \div 2\frac{4}{9}$$

- A) $12\frac{4}{9}$
- B) $12\frac{2}{9}$
- C) $2\frac{1}{44}$
- D) $2\frac{1}{22}$
- E) $2\frac{1}{11}$

104. Divide:

$$4\frac{1}{4} \div \frac{1}{4}$$

- A) 1
- B) $1\frac{1}{16}$
- C) 17
- D) $1\frac{1}{32}$
- E) $17\frac{1}{16}$

105. Divide:

$$\frac{4}{5} \div 2\frac{5}{8}$$

- A) $2\frac{1}{5}$
- B) $2\frac{1}{10}$
- C) $\frac{16}{105}$
- D) $\frac{32}{105}$
- E) $\frac{64}{105}$

106. Divide:

$$4\frac{1}{9} \div 11$$

- A) $\frac{37}{198}$
- B) $45\frac{2}{9}$
- C) $\frac{37}{99}$
- D) $45\frac{1}{9}$
- E) $\frac{74}{99}$

107. Divide:

$$7\frac{1}{3} \div 6\frac{5}{6}$$

A) $1\frac{3}{41}$

B) $50\frac{1}{9}$

C) $1\frac{3}{82}$

D) $50\frac{2}{9}$

E) $1\frac{6}{41}$

108.

Divide $8\frac{2}{3}$ by $7\frac{7}{11}$.

A) $1\frac{17}{252}$

B) $66\frac{2}{11}$

C) $1\frac{17}{126}$

D) $66\frac{4}{11}$

E) $1\frac{17}{63}$

109.

Find the quotient of $5\frac{1}{6}$ and $1\frac{1}{4}$.

- A) $4\frac{2}{15}$
- B) $6\frac{11}{24}$
- C) $4\frac{1}{15}$
- D) $6\frac{11}{12}$
- E) $4\frac{4}{15}$

110.

Individual cereal boxes contain $\frac{1}{8}$ ounce of cereal. How many boxes can be filled with 489 ounces of cereal?

- A) $20\frac{1}{8}$
- B) 1288
- C) $1288\frac{1}{4}$
- D) $20\frac{1}{4}$
- E) 20

111.

The Inverness Investor Group bought $10\frac{1}{3}$ acres of land for \$23,800. What was the cost of each acre?

- A) \$134,866
- B) \$154,700
- C) \$23,800
- D) \$4760
- E) \$4200

112.

A car used $10\frac{3}{7}$ gallons of gasoline on a 574-mile trip. How many miles can the car travel on 1 gallon of gasoline?

- A) 41 miles
- B) 191 miles
- C) 1 mile
- D) 42 miles
- E) 39 miles

113.

The Hammond Company purchased $11\frac{1}{4}$ acres for a housing project. One and a half acres were set aside for a park.

a. How many acres are available for housing?

b. How many $\frac{1}{4}$ acre parcels of land can be sold after the land for the park is set aside?

- A) $9\frac{3}{4}$
(a) $\frac{3}{4}$ acres; (b) 29 parcels
- B) $10\frac{3}{4}$
(a) $\frac{3}{4}$ acres; (b) 29 parcels
- C) $10\frac{3}{4}$
(a) $\frac{3}{4}$ acres; (b) 25 parcels
- D) $9\frac{3}{4}$
(a) $\frac{3}{4}$ acres; (b) 25 parcels
- E) (a) 10 acres; (b) 28 parcels

114. Place the correct symbol, < or >, between the two numbers.

- A) $\frac{13}{51} < \frac{28}{51}$
- B) $\frac{13}{51} > \frac{28}{51}$

115. Place the correct symbol, < or >, between the two numbers.

- $\frac{89}{100}$ $\frac{13}{100}$
- A) $\frac{89}{100} < \frac{13}{100}$
- B) $\frac{89}{100} > \frac{13}{100}$

116. Place the correct symbol, < or >, between the two numbers.

- $\frac{7}{8}$ $\frac{7}{17}$
- A) $\frac{7}{8} > \frac{7}{17}$
- B) $\frac{7}{8} < \frac{7}{17}$

117. Place the correct symbol, < or >, between the two numbers.

- $\frac{11}{24}$ $\frac{8}{11}$
- A) $\frac{11}{24} > \frac{8}{11}$
- B) $\frac{11}{24} < \frac{8}{11}$

118. Simplify:

- $\left(\frac{3}{5}\right)^2$
- A) $\frac{18}{25}$
- B) $\frac{9}{25}$
- C) $\frac{9}{50}$
- D) $\frac{3}{5}$
- E) $\frac{3}{50}$

119. Simplify:

$$\left(\frac{2}{3}\right)\left(\frac{1}{2}\right)^4$$

- A) $\frac{1}{12}$
- B) $\frac{1}{24}$
- C) $\frac{1}{48}$
- D) $\frac{1}{6}$
- E) $\frac{3}{32}$

120. Simplify:

$$\left(\frac{1}{2}\right)^4 \cdot \left(\frac{2}{3}\right)^2$$

- A) $\frac{1}{9}$
- B) $\frac{1}{18}$
- C) $\frac{1}{36}$
- D) $\frac{2}{9}$
- E) $\frac{1}{4}$

121. Simplify:

$$\left(\frac{3}{5}\right) \cdot \left(\frac{5}{6}\right)^2 \cdot \left(\frac{6}{7}\right)$$

A) $\frac{15}{7}$

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

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

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

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

122. Simplify:

$$3 \cdot \left(\frac{3}{7}\right)^3 \cdot \left(\frac{1}{3}\right)^2$$

A) $\frac{27}{343}$

B) $\frac{27}{2401}$

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

D) 27

E) $\frac{9}{343}$

123. Simplify:

$$\left(\frac{3}{4}\right)^2 - \frac{5}{12}$$

A) $\frac{19}{128}$

B) $\frac{7}{96}$

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

D) $1\frac{7}{96}$

E) $1\frac{7}{48}$

124. Simplify:

$$\left(\frac{5}{6}\right) \cdot \left(\frac{2}{3} - \frac{1}{6}\right) + \frac{7}{18}$$

A) $1\frac{29}{36}$

B) $\frac{29}{72}$

C) $\frac{437}{540}$

D) $1\frac{29}{72}$

E) $\frac{29}{36}$

125. Simplify:

$$\frac{7}{12} - \left(\frac{2}{3}\right)^2 + \frac{5}{8}$$

- A) $1\frac{55}{144}$
- B) $\frac{55}{144}$
- C) $\frac{1981}{2592}$
- D) $\frac{55}{72}$
- E) $1\frac{55}{72}$

126. Simplify:

$$\frac{5}{6} \cdot \left(\frac{6}{11}\right)^2 + \frac{1}{4}$$

- A) $2\frac{43}{44}$
- B) $2\frac{43}{88}$
- C) $2\frac{775}{792}$
- D) $3\frac{43}{88}$
- E) $\frac{241}{484}$

127. Simplify:

$$\left(\frac{1}{4} + \frac{5}{6}\right) \div \frac{7}{10}$$

- A) $2\frac{23}{84}$
- B) $1\frac{23}{84}$
- C) $1\frac{31}{56}$
- D) $1\frac{23}{42}$
- E) $2\frac{23}{42}$

128. Simplify:

$$\frac{4}{9} \div \left(\frac{10}{27} + \frac{4}{9}\right)$$

- A) $\frac{6}{23}$
- B) $\frac{3}{23}$
- C) $\frac{13}{46}$
- D) $1\frac{3}{23}$
- E) $\frac{6}{11}$

Answer Key

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

45. B
46. A
47. B
48. A
49. B
50. A
51. C
52. E
53. D
54. C
55. C
56. D
57. A
58. E
59. C
60. B
61. C
62. D
63. A
64. E
65. A
66. B
67. A
68. E
69. D
70. D
71. B
72. E
73. C
74. B
75. C
76. C
77. A
78. D
79. C
80. B
81. A
82. E
83. B
84. D
85. C
86. E
87. B
88. D
89. A
90. C

- 91. B
- 92. D
- 93. E
- 94. D
- 95. B
- 96. A
- 97. C
- 98. C
- 99. E
- 100. B
- 101. D
- 102. E
- 103. D
- 104. C
- 105. D
- 106. C
- 107. A
- 108. C
- 109. A
- 110. B
- 111. E
- 112. D
- 113. D
- 114. A
- 115. B
- 116. A
- 117. B
- 118. B
- 119. B
- 120. C
- 121. C
- 122. E
- 123. C
- 124. E
- 125. D
- 126. E
- 127. D
- 128. E