Chapter 2 Fractions: Multiplication and Division

1. Identify the numerator and the denominator. $\dfrac{5}{6}$

   Ans: numerator: 5; denominator 6
   Difficulty Level: Routine
   Objective: Definition of a fraction
   Section: 2.1

2. Write the fraction as a division problem and simplify, if possible. $\dfrac{10}{1}$

   Ans: $10 \div 1$; 10
   Difficulty Level: Moderate
   Objective: Definition of a fraction
   Section: 2.1

3. Write the fraction as a division problem and simplify, if possible. $\dfrac{2}{2}$

   Ans: $2 \div 2$; 1
   Difficulty Level: Moderate
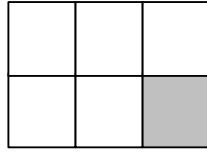   Objective: Definition of a fraction
   Section: 2.1

4. Write the fraction as a division problem and simplify, if possible. $\dfrac{0}{2}$

   A) $0 \div 2$; 0   B) $0 \div 2$; undefined   C) $2 \div 0$; 0   D) $2 \div 0$; undefined
   Ans: A
   Difficulty Level: Moderate
   Objective: Definition of a fraction
   Section: 2.1

5. Write the fraction as a division problem and simplify, if possible. $\dfrac{6}{0}$

   A) $6 \div 0$; 0   B) $6 \div 0$; undefined   C) $0 \div 6$; 0   D) $0 \div 6$; undefined
   Ans: B
   Difficulty Level: Difficult
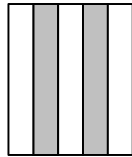   Objective: Definition of a fraction
   Section: 2.1

6. Write a fraction that represents the shaded area.

   Ans: $\dfrac{1}{6}$

   Difficulty Level: Routine
   Objective: Definition of a fraction
   Section: 2.1

7. Write a fraction that represents the shaded area.

   A) $\dfrac{5}{3}$ B) $\dfrac{2}{5}$ C) $\dfrac{3}{5}$ D) $\dfrac{1}{2}$

   Ans: B
   Difficulty Level: Routine
   Objective: Definition of a fraction
   Section: 2.1

8. A class has 20 children, 11 girls and 9 boys. What fraction of the class is made up of boys?

   Ans: $\dfrac{9}{20}$

   Difficulty Level: Difficult
   Objective: Definition of a fraction
   Section: 2.1

9. Label the fraction as proper or improper. $\dfrac{9}{10}$

   A) proper   B) improper
   Ans: A
   Difficulty Level: Routine
   Objective: Proper and improper fractions
   Section: 2.1

10. Label the fraction as proper or improper. $\dfrac{2}{2}$

   A) proper   B) improper
   Ans: B
   Difficulty Level: Moderate
   Objective: Proper and improper fractions
   Section: 2.1

11. Label the fraction as proper or improper. $\dfrac{8}{7}$

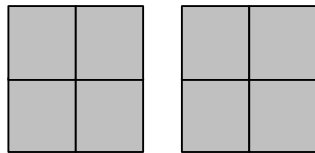   A) proper   B) improper
   Ans: B
   Difficulty Level: Routine
   Objective: Proper and improper fractions
   Section: 2.1

12. Write an improper fraction for the shaded portion of the group of figures.
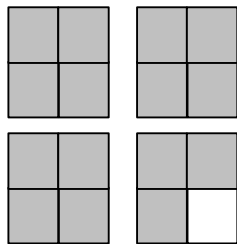

   Ans: $\dfrac{8}{4}$

   Difficulty Level: Difficult
   Objective: Proper and improper fractions
   Section: 2.1

13. Write an improper fraction and a mixed number for the shaded portion of the group of
   figures.

   Ans: $\dfrac{15}{4}$ and $3\dfrac{3}{4}$

   Difficulty Level: Difficult
   Objective: Mixed numbers
   Section: 2.1

14. Convert the mixed number to an improper fraction. $3\dfrac{5}{6}$

    A) $\dfrac{7}{3}$ B) $\dfrac{23}{6}$ C) $\dfrac{19}{2}$ D) $\dfrac{25}{6}$

    Ans: B
    Difficulty Level: Moderate
    Objective: Mixed numbers
    Section: 2.1

15. Convert the mixed number to an improper fraction. $3\dfrac{2}{9}$

    Ans: $\dfrac{29}{9}$
    Difficulty Level: Moderate
    Objective: Mixed numbers
    Section: 2.1

16. Convert the improper fraction to a mixed number. $\dfrac{16}{7}$

    A) $2\dfrac{2}{7}$ B) $2\dfrac{1}{8}$ C) $7\dfrac{1}{16}$ D) $16\dfrac{1}{7}$

    Ans: A
    Difficulty Level: Moderate
    Objective: Mixed numbers
    Section: 2.1

17. Convert the improper fraction to a mixed number. $\dfrac{123}{8}$

    Ans: $15\dfrac{3}{8}$
    Difficulty Level: Moderate
    Objective: Mixed numbers
    Section: 2.1

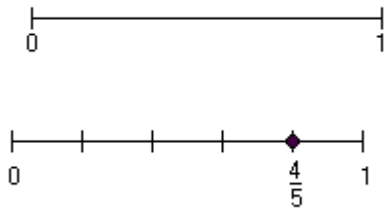18. Divide. Write the quotient as a mixed number. $10\overline{)979}$

    Ans: $97\dfrac{9}{10}$
    Difficulty Level: Moderate
    Objective: Mixed numbers
    Section: 2.1

19. Plot the fraction on the number line. $\dfrac{4}{5}$

Ans:
Difficulty Level: Difficult
Objective: Fractions and the number line
Section: 2.1

20. Find two different factorizations of 14.
    Ans: $2 \cdot 7$ and $1 \cdot 14$
    Difficulty Level: Routine
    Objective: Factors and factorizations
    Section: 2.2

21. Find two factors whose product is 48 and whose sum is 14.
    Ans: 6 and 8
    Difficulty Level: Moderate
    Objective: Factors and factorizations
    Section: 2.2

22. Determine if the number 75 is divisible by
    a. 2   b. 3   c. 5   d. 10
    Ans: a. no   b. yes   c. yes   d. no
    Difficulty Level: Moderate
    Objective: Divisibility rules
    Section: 2.2

23. Determine if the number is divisible by 5.
           73
    A) no   B) yes
    Ans: A
    Difficulty Level: Routine
    Objective: Divisibility rules
    Section: 2.2

24. Determine if the number 2100 is divisible by
    a. 2   b. 3   c. 5   d. 10
    Ans: a. yes   b. yes   c. yes   d. yes
    Difficulty Level: Moderate
    Objective: Divisibility rules
    Section: 2.2

25. A teacher has 34 students in her class. Can she distribute a package of 70 candies evenly
    to her students?
    A) yes   B) no
    Ans: B
    Difficulty Level: Moderate
    Objective: Divisibility rules
    Section: 2.2

26. Which number is prime?
    A) 1   B) 12   C) 31   D) 99
    Ans: C
    Difficulty Level: Routine
    Objective: Prime and composite numbers
    Section: 2.2

27. The number 26 is _____ .
    A) prime   B) composite   C) neither prime nor composite
    Ans: B
    Difficulty Level: Routine
    Objective: Prime and composite numbers
    Section: 2.2

28. The number 1 is _____.
    A) prime   B) composite   C) neither prime nor composite
    Ans: C
    Difficulty Level: Moderate
    Objective: Prime and composite numbers
    Section: 2.2

29. The number 0 is _____.
    A) prime   B) composite   C) neither prime nor composite
    Ans: C
    Difficulty Level: Moderate
    Objective: Prime and composite numbers
    Section: 2.2

30. <u>True or false?</u> 67 is a composite number.
    Ans: False
    Difficulty Level: Routine
    Objective: Prime and composite numbers
    Section: 2.2

31. Find the prime factorization of 40.
    Ans: $2 \cdot 2 \cdot 2 \cdot 5$
    Difficulty Level: Moderate
    Objective: Prime factorization
    Section: 2.2

32. Find the prime factorization of 19.
    Ans: prime
    Difficulty Level: Routine
    Objective: Prime factorization
    Section: 2.2

33. List all the factors of 16.
    Ans: 1, 2, 4, 8, 16
    Difficulty Level: Moderate
    Objective: Identifying all factors of a whole number
    Section: 2.2

34. List all the factors of 45.
    A) 1, 3, 5, 9, 45   B) 1, 3, 5, 9, 15   C) 1, 3, 5, 9, 15, 45   D) 1, 3, 5, 6, 15, 45
    Ans: C
    Difficulty Level: Moderate
    Objective: Identifying all factors of a whole number
    Section: 2.2

35. List all the factors of 54.
    Ans: 1, 2, 3, 6, 9, 18, 27, 54
    Difficulty Level: Moderate
    Objective: Identifying all factors of a whole number
    Section: 2.2

36. Find the prime factorization of 135.
    Ans: $3 \cdot 3 \cdot 3 \cdot 5$
    Difficulty Level: Moderate
    Objective: Prime factorization
    Section: 2.2

37. Shade the second figure so that it expresses a fraction equivalent to the first figure.

A)   C)

B)   D)

Ans: C
Difficulty Level: Routine
Objective: Equivalent fractions
Section: 2.3

38. True or false? The fractions $\frac{1}{7}$ and $\frac{7}{1}$ are equivalent.

Ans: False
Difficulty Level: Routine
Objective: Equivalent fractions
Section: 2.3

39. Determine if the fractions are equivalent. Then fill in the blank with either = or ≠.

$$\frac{1}{4} \ \square \ \frac{5}{20}$$

A) =   B) ≠
Ans: A
Difficulty Level: Moderate
Objective: Equivalent fractions
Section: 2.3

40. Determine if the fractions are equivalent. Then fill in the blank with either = or ≠.

$$\frac{13}{14} \ \square \ \frac{25}{28}$$

A) =   B) ≠
Ans: B
Difficulty Level: Moderate
Objective: Equivalent fractions
Section: 2.3

41. Determine if the fractions are equivalent. Then fill in the blank with either = or ≠.

$$\frac{12}{27} \ \square \ \frac{4}{9}$$

A) =   B) ≠

Ans: A

Difficulty Level: Moderate

Objective: Equivalent fractions

Section: 2.3

42. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{2}{4}$$

Ans: $\frac{1}{2}$

Difficulty Level: Moderate

Objective: Simplifying fractions to lowest terms

Section: 2.3

43. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{12}{20}$$

A) $\frac{6}{10}$ B) $\frac{6}{20}$ C) $\frac{3}{10}$ D) $\frac{3}{5}$

Ans: D

Difficulty Level: Moderate

Objective: Simplifying fractions to lowest terms

Section: 2.3

44. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{39}{33}$$

Ans: $\frac{13}{11}$

Difficulty Level: Moderate

Objective: Simplifying fractions to lowest terms

Section: 2.3

45. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

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

Ans: 1
Difficulty Level: Moderate
Objective: Simplifying fractions to lowest terms
Section: 2.3

46. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{21}{7}$$

Ans: 3
Difficulty Level: Moderate
Objective: Simplifying fractions to lowest terms
Section: 2.3

47. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{99}{110}$$

A) $\frac{9}{11}$ B) $\frac{9}{10}$ C) $\frac{11}{9}$ D) $\frac{10}{9}$

Ans: B
Difficulty Level: Moderate
Objective: Simplifying fractions to lowest terms
Section: 2.3

48. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{57}{133}$$

Ans: $\frac{3}{7}$

Difficulty Level: Difficult
Objective: Simplifying fractions to lowest terms
Section: 2.3

49. Simplify the fraction to lowest terms. Write the answer as a fraction or a whole number.

$$\frac{60}{70}$$

Ans: $\frac{6}{7}$

Difficulty Level: Difficult
Objective: Simplifying fractions to lowest terms
Section: 2.3

50. Use the order of operations to simplify.

$$\frac{6+2}{6-3}$$

A) $\frac{4}{3}$ B) $\frac{8}{9}$ C) 2   D) $\frac{8}{3}$

Ans: D
Difficulty Level: Moderate
Objective: Simplifying fractions to lowest terms
Section: 2.3

51. Simplify to lowest terms by first reducing the powers of 10.

$$\frac{1600}{2800}$$

Ans: $\frac{4}{7}$

Difficulty Level: Difficult
Objective: Simplifying fractions by powers of 10
Section: 2.3

52. Angel tossed a coin 54 times and heads came up 22 times. What fractional part of the tosses came up heads? What fractional part came up tails?

A)   heads: $\frac{10}{27}$; tails: $\frac{17}{27}$ C)   heads: $\frac{11}{27}$; tails: $\frac{14}{27}$

B)   heads: $\frac{13}{27}$; tails: $\frac{17}{27}$ D)   heads: $\frac{11}{27}$; tails: $\frac{16}{27}$

Ans: D
Difficulty Level: Difficult
Objective: Applications of simplifying fractions
Section: 2.3

53. At a raffle, Joe purchased 8 tickets. If 160 tickets were sold, what fraction of the tickets does Joe have?

Ans: $\frac{1}{20}$

Difficulty Level: Difficult
Objective: Applications of simplifying fractions
Section: 2.3

54. Allen and Rajiv worked on their homework together. Allen finished 18 of the 30 problems he was assigned, and Rajiv finished 28 of the 35 problems he was assigned.
    a. What fractional part of his total number of homework problems did each boy finish?
    b. Which boy finished the greater fractional part?
    Ans: a. Allen: $\frac{3}{5}$; Rajiv: $\frac{4}{5}$

         b. Rajiv finished the greater fractional part.
    Difficulty Level: Difficult
    Objective: Applications of simplifying fractions
    Section: 2.3

55. Find $\frac{1}{3}$ of $\frac{1}{4}$.

    A) $\frac{4}{3}$ B) $\frac{3}{4}$ C) $\frac{1}{7}$ D) $\frac{1}{12}$
    Ans: D
    Difficulty Level: Routine
    Objective: Multiplication of fractions
    Section: 2.4

56. Multiply and write the answer as a fraction. $\frac{1}{6} \cdot \frac{5}{9}$

    Ans: $\frac{5}{54}$
    Difficulty Level: Routine
    Objective: Multiplication of fractions
    Section: 2.4

57. Multiply and write the answer as a fraction. $\left(\frac{2}{9}\right)\left(\frac{4}{5}\right)$

    A) $\frac{8}{45}$ B) $\frac{4}{7}$ C) $\frac{360}{45}$ D) $\frac{5}{18}$
    Ans: A
    Difficulty Level: Routine
    Objective: Multiplication of fractions
    Section: 2.4

58. Multiply and write the answer as a fraction. $3 \cdot \left(\dfrac{5}{7} \right)$

   Ans: $\dfrac{15}{7}$

   Difficulty Level: Routine
   Objective: Multiplication of fractions
   Section: 2.4

59. Multiply and write the answer as a fraction. $\dfrac{9}{8} \times \dfrac{3}{2}$

   Ans: $\dfrac{27}{16}$

   Difficulty Level: Routine
   Objective: Multiplication of fractions
   Section: 2.4

60. Multiply and simplify to lowest terms. Write the answer as a fraction or whole number.

   $$\dfrac{7}{12} \times \dfrac{3}{11}$$

   Ans: $\dfrac{7}{44}$

   Difficulty Level: Moderate
   Objective: Multiplication of fractions
   Section: 2.4

61. Multiply and simplify to lowest terms. Write the answer as a fraction or whole number.

   $$\left(\dfrac{32}{5} \right)\left(\dfrac{35}{20} \right)$$

   A) $\dfrac{52}{5}$ B) $\dfrac{54}{5}$ C) $\dfrac{56}{5}$ D) $\dfrac{58}{5}$

   Ans: C
   Difficulty Level: Moderate
   Objective: Multiplication of fractions
   Section: 2.4

62. Multiply and simplify to lowest terms. Write the answer as a fraction or whole number.

$$\left(\frac{35}{3}\right)\left(\frac{9}{49}\right)$$

Ans: $\dfrac{15}{7}$

Difficulty Level: Moderate
Objective: Multiplication of fractions
Section: 2.4

63. Multiply and simplify to lowest terms. Write the answer as a fraction or whole number.

$$\frac{15}{7} \cdot \frac{35}{3}$$

A) 25   B) $\dfrac{525}{21}$ C) $\dfrac{75}{3}$ D) $\dfrac{175}{7}$

Ans: A
Difficulty Level: Moderate
Objective: Multiplication of fractions
Section: 2.4

64. Multiply and simplify to lowest terms. Write the answer as a fraction or whole number.

$$\frac{12}{16} \times \frac{25}{3} \times \frac{8}{5}$$

A) $\dfrac{100}{10}$ B) $\dfrac{60}{3}$ C) 10   D) 20

Ans: C
Difficulty Level: Difficult
Objective: Multiplication of fractions
Section: 2.4

65. Find the power of $\dfrac{1}{10}$.

$$\left(\frac{1}{10}\right)^{6}$$

A) $\dfrac{1}{100,000}$ B) $\dfrac{1}{1,000,000}$ C) $\dfrac{1}{10,000,000}$ D) 10,000,000

Ans: B
Difficulty Level: Moderate
Objective: Fractions and the order of operations
Section: 2.4

66. Simplify. Write the answer as a fraction or whole number.

$$\left(\frac{1}{9}\right)^2$$

A) $\dfrac{1}{18}$ B) $\dfrac{2}{9}$ C) $\dfrac{1}{81}$ D) 18

Ans: C
Difficulty Level: Moderate
Objective: Fractions and the order of operations
Section: 2.4

67. Simplify. Write the answer as a fraction or whole number.

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

A) $\dfrac{8}{25}$ B) $\dfrac{1000}{5}$ C) 6   D) 8

Ans: D
Difficulty Level: Difficult
Objective: Fractions and the order of operations
Section: 2.4

68. Simplify. Write the answer as a fraction or whole number.

$$\frac{1}{4} \cdot \left(\frac{24}{5} \cdot \frac{15}{6}\right)$$

A) 12   B) $\dfrac{1}{12}$ C) 3   D) $\dfrac{1}{3}$

Ans: C
Difficulty Level: Difficult
Objective: Fractions and the order of operations
Section: 2.4

69. Simplify. Write the answer as a fraction or whole number.

$$\frac{81}{4} \cdot \left(\frac{1}{3}\right)^3$$

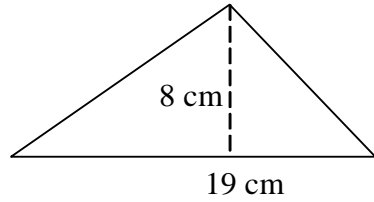A) $\dfrac{3}{4}$ B) $\dfrac{9}{2}$ C) $\dfrac{27}{4}$ D) $\dfrac{1}{2}$

Ans: A
Difficulty Level: Difficult
Objective: Fractions and the order of operations
Section: 2.4

70. Find the area of the figure.

8 cm

19 cm

A) 74 cm^2 B) 76 cm^2 C) 152 cm^2 D) 154 cm^2
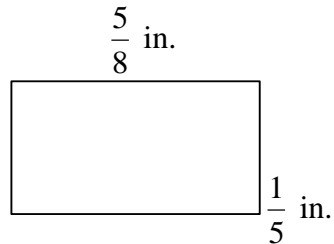Ans: B
Difficulty Level: Moderate
Objective: Area of a triangle
Section: 2.4

71. Find the area of the figure.

$\frac{5}{8}$ in.

$\frac{1}{5}$ in.

Ans: $\frac{1}{8}$ in.^{2}

Difficulty Level: Moderate
Objective: Area of a triangle
Section: 2.4

72. A recipe calls for $\frac{1}{3}$ cup of water. If the recipe is being tripled, how much water should be used?

A) $\frac{1}{9}$ cup   B) 1 cup   C) $\frac{1}{3}$ cup   D) 3 cups

Ans: B
Difficulty Level: Moderate
Objective: Applications of multiplying fractions
Section: 2.4

73. Joseph exercises 3 times a day for $\dfrac{7}{8}$ hours per exercise session. How many hours does he exercise per day?

A) $\dfrac{21}{8}$ hours per day

C) $\dfrac{7}{8}$ hours per day

B) $\dfrac{5}{4}$ hours per day

D) 3 hours per day

Ans: A
Difficulty Level: Moderate
Objective: Applications of multiplying fractions
Section: 2.4

74. Find the reciprocal of the number, if it exists.

$$\dfrac{3}{7}$$

Ans: $\dfrac{7}{3}$

Difficulty Level: Routine
Objective: Reciprocal of a fraction
Section: 2.5

75. Find the reciprocal of the number, if it exists.

$$6$$

A) 1   B) 6   C) $\dfrac{1}{6}$ D) No reciprocal exists.

Ans: C
Difficulty Level: Routine
Objective: Reciprocal of a fraction
Section: 2.5

76. Find the reciprocal of the number, if it exists.

$$\dfrac{0}{3}$$

A) 3   B) 0   C) $\dfrac{3}{0}$ D) No reciprocal exists.

Ans: D
Difficulty Level: Routine
Objective: Reciprocal of a fraction
Section: 2.5

77. Fill in the blank.

Dividing by 9 is the same as multiplying by _____.

Ans: $\dfrac{1}{9}$

Difficulty Level: Routine
Objective: Division of fractions
Section: 2.5

78. Divide and simplify the answer to lowest terms. Write the answer as a fraction or whole number.

$$\frac{8}{23} \div \frac{10}{23}$$

Ans: $\dfrac{4}{5}$

Difficulty Level: Moderate
Objective: Division of fractions
Section: 2.5

79. Divide and simplify the answer to lowest terms. Write the answer as a fraction or whole number.

$$\frac{10}{17} \div \frac{10}{17}$$

Ans: 1
Difficulty Level: Moderate
Objective: Division of fractions
Section: 2.5

80. Divide and simplify the answer to lowest terms. Write the answer as a fraction or whole number.

$$3 \div \frac{8}{13}$$

Ans: $\dfrac{39}{8}$

Difficulty Level: Moderate
Objective: Division of fractions
Section: 2.5

81. Divide and simplify the answer to lowest terms. Write the answer as a fraction or whole number.

$$\frac{5}{4} \div \frac{1}{4}$$

A) 5   B) $\frac{5}{16}$ C) $\frac{1}{5}$ D) 20

Ans: A
Difficulty Level: Moderate
Objective: Division of fractions
Section: 2.5

82. Divide and simplify the answer to lowest terms. Write the answer as a fraction or whole number.

$$\frac{20}{9} \div 4$$

A) $\frac{20}{36}$ B) $\frac{80}{9}$ C) $\frac{5}{9}$ D) $\frac{36}{20}$

Ans: C
Difficulty Level: Moderate
Objective: Division of fractions
Section: 2.5

83. Divide and simplify the answer to lowest terms. Write the answer as a fraction or whole number.

$$\frac{9}{10} \div \frac{12}{5}$$

A) $\frac{3}{8}$ B) $\frac{54}{25}$ C) $\frac{8}{3}$ D) $\frac{25}{54}$

Ans: A
Difficulty Level: Moderate
Objective: Division of fractions
Section: 2.5

84. Simplify using the order of operations. Write the answer as a fraction or whole number.

$$\frac{56}{18} \div \frac{7}{6} \div \frac{4}{3}$$

A) $\frac{8}{7}$ B) 2   C) $\frac{32}{9}$ D) 4

Ans: B
Difficulty Level: Difficult
Objective: Order of operations
Section: 2.5

85. Simplify using the order of operations. Write the answer as a fraction or whole number.

$$\left(\frac{4}{7} \div \frac{8}{5}\right) \cdot \frac{2}{3}$$

A) 16   B) $\frac{8}{15}$ C) $\frac{5}{21}$ D) $\frac{4}{35}$

Ans: C
Difficulty Level: Difficult
Objective: Order of operations
Section: 2.5

86. Simplify using the order of operations. Write the answer as a fraction or whole number.

$$\left(\frac{3}{10}\right)^2 \div \frac{9}{4}$$

Ans: $\frac{1}{25}$

Difficulty Level: Difficult
Objective: Order of operations
Section: 2.5

87. Simplify using the order of operations. Write the answer as a fraction or whole number.

$$\left(\frac{3}{4} \div \frac{15}{7}\right)^2$$

Ans: $\frac{49}{400}$

Difficulty Level: Difficult
Objective: Order of operations
Section: 2.5

88. Simplify using the order of operations. Write the answer as a fraction or whole number.

$$\left(\frac{35}{6} \div \frac{7}{3}\right)^2 \cdot 8$$

A) $\frac{60}{7}$ B) 20   C) $\frac{32}{25}$ D) 50

Ans: D
Difficulty Level: Difficult
Objective: Order of operations
Section: 2.5

89. A developer sells residential home sites in $\frac{3}{4}$-acre lots. If the developer has 360 acres, how many lots can be sold?
A) 240 acres   B) 270 acres   C) 480 acres   D) 540 acres
Ans: C
Difficulty Level: Moderate
Objective: Applications of multiplication and division of fractions
Section: 2.5

90. A television station allows 21 minutes of advertising each hour. How many 36-second $\left(\frac{3}{5}\text{-minute}\right)$ commercials can be run in 1 day?
A) 35   B) 840   C) 756   D) 120
Ans: B
Difficulty Level: Difficult
Objective: Applications of multiplication and division of fractions
Section: 2.5

91. Joseph must read 28 pages for his literature class and 16 pages for history. If he has read $\frac{1}{4}$ of the pages,
a. How many pages has he read?
b. How many pages does he still have to read?
Ans: a. Joseph has read 11 pages.
        b. Joseph still must read 33 pages.
Difficulty Level: Difficult
Objective: Applications of multiplication and division of fractions
Section: 2.5

92. Multiply. Write the answer as a mixed number or a whole number.
$$\left(2\frac{1}{4}\right)\left(5\frac{1}{4}\right)$$
Ans: $11\frac{13}{16}$
Difficulty Level: Moderate
Objective: Multiplication of mixed numbers
Section: 2.6

93. Multiply. Write the answer as a mixed number or a whole number.

$$5\frac{1}{3} \cdot 1\frac{1}{4}$$

A) $6\frac{2}{3}$ B) $5\frac{1}{12}$ C) $6\frac{1}{12}$ D) $5\frac{2}{3}$

Ans: A
Difficulty Level: Moderate
Objective: Multiplication of mixed numbers
Section: 2.6

94. Multiply. Write the answer as a mixed number or a whole number.

$$4\frac{1}{6} \cdot \frac{3}{5}$$

A) $4\frac{2}{5}$ B) $4\frac{1}{10}$ C) $2\frac{1}{5}$ D) $2\frac{1}{2}$

Ans: D
Difficulty Level: Moderate
Objective: Multiplication of mixed numbers
Section: 2.6

95. Multiply. Write the answer as a mixed number or a whole number.

$$\left(5\frac{2}{5}\right) \cdot 5$$

Ans: 27
Difficulty Level: Moderate
Objective: Multiplication of mixed numbers
Section: 2.6

96. Multiply. Write the answer as a mixed number or a whole number.

$$4\frac{1}{2} \cdot 0$$

A) 4   B) $\frac{1}{2}$ C) 0   D) Cannot be multiplied.

Ans: C
Difficulty Level: Moderate
Objective: Multiplication of mixed numbers
Section: 2.6

97. Multiply. Write the answer as a mixed number or a whole number.

$$\left(4\frac{2}{5}\right)\left(\frac{25}{44}\right)\left(1\frac{1}{20}\right)$$

A) $4\frac{3}{8}$ B) $2\frac{5}{8}$ C) $4\frac{1}{88}$ D) $5\frac{5}{88}$

Ans: B
Difficulty Level: Difficult
Objective: Multiplication of mixed numbers
Section: 2.6

98. Divide. Write the answer as a mixed number, proper fraction, or whole number.

$$1\frac{3}{10} \div 3\frac{2}{5}$$

A) $\frac{13}{17}$ B) $3\frac{1}{3}$ C) $\frac{13}{34}$ D) $7\frac{3}{20}$

Ans: C
Difficulty Level: Moderate
Objective: Division of mixed numbers
Section: 2.6

99. Divide. Write the answer as a mixed number, proper fraction, or whole number.

$$24\frac{16}{25} \div 5\frac{3}{5}$$

Ans: $4\frac{2}{5}$

Difficulty Level: Moderate
Objective: Division of mixed numbers
Section: 2.6

100. Divide. Write the answer as a mixed number, proper fraction, or whole number.

$$15\frac{3}{5} \div 2\frac{3}{5}$$

Ans: 6
Difficulty Level: Moderate
Objective: Division of mixed numbers
Section: 2.6

101. Divide. Write the answer as a mixed number, proper fraction, or whole number.

$$0 \div 2\frac{1}{2}$$

A) 0   B) 2   C) $2\frac{1}{2}$ D) Cannot be divided.

Ans: A
Difficulty Level: Moderate
Objective: Division of mixed numbers
Section: 2.6

102. Divide. Write the answer as a mixed number, proper fraction, or whole number.

$$3\frac{4}{5} \div \frac{1}{5}$$

A) 7   B) 19   C) $3\frac{1}{4}$ D) $3\frac{4}{25}$

Ans: B
Difficulty Level: Moderate
Objective: Division of mixed numbers
Section: 2.6

103. Divide. Write the answer as a mixed number, proper fraction, or whole number.

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

A) 4   B) $4\frac{1}{9}$ C) 5   D) $1\frac{4}{9}$

Ans: D
Difficulty Level: Moderate
Objective: Division of mixed numbers
Section: 2.6

104. Divide. Write the answer as a mixed number, proper fraction, or whole number.

$$8\frac{1}{6} \div 1\frac{1}{3} \div 5\frac{1}{4}$$

A) $40\frac{1}{72}$ B) $2\frac{2}{27}$ C) $1\frac{1}{6}$ D) $32\frac{5}{32}$

Ans: C
Difficulty Level: Difficult
Objective: Division of mixed numbers
Section: 2.6

105. Laura's parents pay her $5 an hour to babysit her little brother. If Laura babysits for $3\frac{1}{5}$ hours, how much will her parents pay her?
Ans: Her parents will pay her $16.
Difficulty Level: Difficult
Objective: Applications of multiplication and division of mixed numbers
Section: 2.6

106. Edward's estate is to be split equally among his three heirs. If his estate is worth $\$2\frac{3}{5}$ million, how much will each heir inherit?

A)   Each heir will inherit $\$\frac{14}{15}$ million.

C)   Each heir will inherit $\$\frac{11}{15}$ million.

B)   Each heir will inherit $\$\frac{13}{15}$ million.

D)   Each heir will inherit $\$\frac{8}{15}$ million.

Ans: B
Difficulty Level: Difficult
Objective: Applications of multiplication and division of mixed numbers
Section: 2.6