

## Chapter 2 Fractions: Multiplication and Division

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

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.  $\frac{10}{1}$

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.  $\frac{2}{2}$

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.  $\frac{0}{2}$

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.  $\frac{6}{0}$

A)  $6 \div 0$ ; 0   B)  $6 \div 0$ ; undefined   C)  $0 \div 6$ ; 0   D)  $0 \div 6$ ; undefined

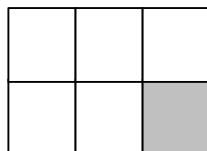
Ans: B

Difficulty Level: Difficult

Objective: Definition of a fraction

Section: 2.1

6. Write a fraction that represents the shaded area.



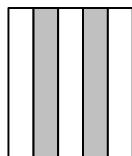
Ans:  $\frac{1}{6}$

Difficulty Level: Routine

Objective: Definition of a fraction

Section: 2.1

7. Write a fraction that represents the shaded area.



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

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:  $\frac{9}{20}$

Difficulty Level: Difficult

Objective: Definition of a fraction

Section: 2.1

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

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.  $\frac{2}{2}$

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.  $\frac{8}{7}$

A) proper B) improper

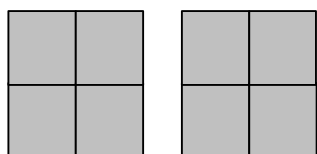
Ans: B

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.



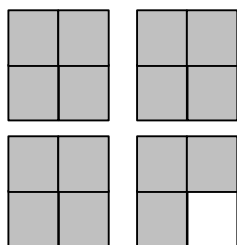
Ans:  $\frac{8}{4}$

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:  $\frac{15}{4}$  and  $3\frac{3}{4}$

Difficulty Level: Difficult

Objective: Mixed numbers

Section: 2.1

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

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

Ans: B

Difficulty Level: Moderate

Objective: Mixed numbers

Section: 2.1

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

Ans:  $\frac{29}{9}$

Difficulty Level: Moderate

Objective: Mixed numbers

Section: 2.1

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

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

Ans: A

Difficulty Level: Moderate

Objective: Mixed numbers

Section: 2.1

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

Ans:  $15\frac{3}{8}$

Difficulty Level: Moderate

Objective: Mixed numbers

Section: 2.1

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

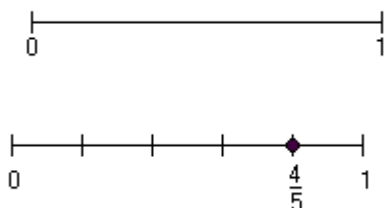
Ans:  $97\frac{9}{10}$

Difficulty Level: Moderate

Objective: Mixed numbers

Section: 2.1

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



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. True or false? 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.

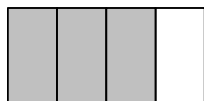
Ans:  $3 \cdot 3 \cdot 3 \cdot 5$

Difficulty Level: Moderate

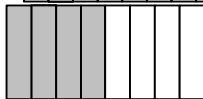
Objective: Prime factorization

Section: 2.2

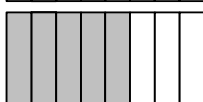
37. Shade the second figure so that it expresses a fraction equivalent to the first figure.



A)



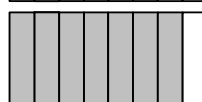
B)



C)



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  $\neq$ .

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

A) = B)  $\neq$

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  $\neq$ .

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

A) = B)  $\neq$

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  $\neq$ .

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

A) =    B)  $\neq$

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.
- What fractional part of his total number of homework problems did each boy finish?
  - 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.  $3 \cdot \left(\frac{5}{7}\right)$

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

Difficulty Level: Routine

Objective: Multiplication of fractions

Section: 2.4

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

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

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.

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

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

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.

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

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

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:  $\frac{15}{7}$

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)  $\frac{525}{21}$    C)  $\frac{75}{3}$    D)  $\frac{175}{7}$

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

Ans: C

Difficulty Level: Difficult

Objective: Multiplication of fractions

Section: 2.4

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

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

A)  $\frac{1}{100,000}$    B)  $\frac{1}{1,000,000}$    C)  $\frac{1}{10,000,000}$    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)  $\frac{1}{18}$    B)  $\frac{2}{9}$    C)  $\frac{1}{81}$    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)  $\frac{8}{25}$    B)  $\frac{1000}{5}$    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)  $\frac{1}{12}$    C) 3   D)  $\frac{1}{3}$

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

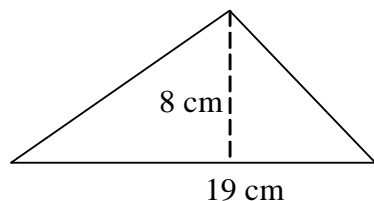
Ans: A

Difficulty Level: Difficult

Objective: Fractions and the order of operations

Section: 2.4

70. Find the area of the figure.



- A)  $74 \text{ cm}^2$    B)  $76 \text{ cm}^2$    C)  $152 \text{ cm}^2$    D)  $154 \text{ cm}^2$

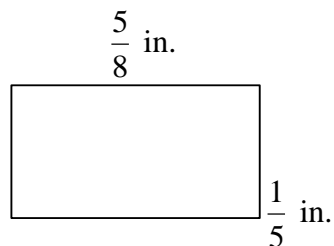
Ans: B

Difficulty Level: Moderate

Objective: Area of a triangle

Section: 2.4

71. Find the area of the figure.



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

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  $\frac{7}{8}$  hours per exercise session. How many hours does he exercise per day?

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

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

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

$$\frac{3}{7}$$

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

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)  $\frac{1}{6}$    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.

$$\frac{0}{3}$$

A) 3   B) 0   C)  $\frac{3}{0}$    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:  $\frac{1}{9}$

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:  $\frac{4}{5}$

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:  $\frac{39}{8}$

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

$\left(\frac{3}{5}\right)$ -minute 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