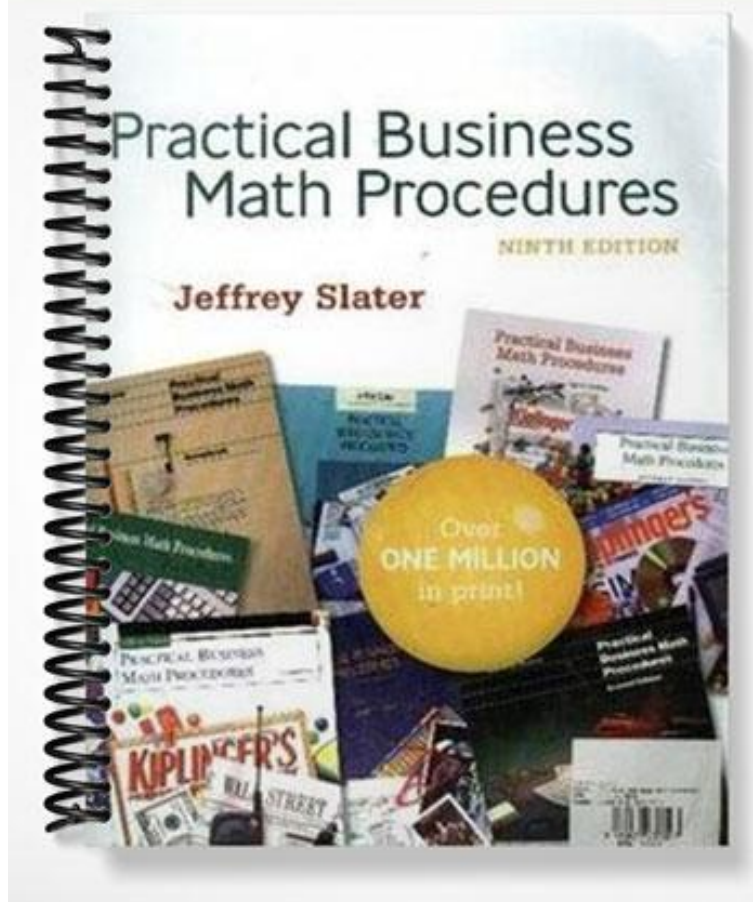


# TEST BANK



## Chapter 002 Fractions

### True / False Questions

1. A proper fraction is when the numerator is greater than the denominator.

**FALSE**

*Difficulty: Easy*

2. The writing of a whole number and a proper fraction is an improper fraction.

**FALSE**

*Difficulty: Easy*

3.  $\frac{4}{5}$  is a proper fraction.

**TRUE**

*Difficulty: Easy*

4. When a mixed number is converted to an improper fraction the new numerator is placed over the old denominator.

**TRUE**

*Difficulty: Easy*

5. The greatest common divisor can be zero.

**FALSE**

*Difficulty: Easy*

## Chapter 002 Fractions

6. Inspection as well as the step approach could be used to find the least common denominator.

**TRUE**

*Difficulty: Easy*

7. In the step approach the last divisor used is the greatest common divisor.

**TRUE**

*Difficulty: Hard*

8. Fractions should never be reduced to their lowest terms.

**FALSE**

*Difficulty: Easy*

9. The greatest common divisor and the least common denominator are really the same.

**FALSE**

*Difficulty: Hard*

10. The least common denominator of fractions can be found by observation or by the use of prime numbers.

**TRUE**

*Difficulty: Easy*

11. 4 is a prime number.

**FALSE**

*Difficulty: Easy*

## Chapter 002 Fractions

12. 2, 5, 7, 11, 13 are all examples of prime numbers.

**TRUE**

*Difficulty: Hard*

13. Cancellation is a technique to reduce fractions to lowest terms.

**TRUE**

*Difficulty: Easy*

14. The reciprocal is not used in dividing fractions.

**FALSE**

*Difficulty: Medium*

15. Reducing a fraction to lowest terms does not change the fraction's value.

**TRUE**

*Difficulty: Easy*

16. Raising a fraction to higher terms does change the value of the fraction.

**FALSE**

*Difficulty: Medium*

17. A mixed number is a whole number and proper fraction.

**TRUE**

*Difficulty: Easy*

## Chapter 002 Fractions

### Multiple Choice Questions

18.  $1\frac{4}{5}$  is an example of a(n):

- a. Proper fraction
- B.** Mixed number
- c. Improper fraction
- d. Complex fraction
- e. None of these

*Difficulty: Easy*

19.  $\frac{13}{2}$  converted to mixed number is:

- a.  $6\frac{1}{6}$
- B.**  $6\frac{1}{2}$
- c.  $6\frac{1}{3}$
- d.  $6\frac{3}{4}$
- e. None of these

*Difficulty: Easy*

20. The greatest common divisor of  $\frac{20}{30}$  is:

- a. 2
- b. 5
- c. 1
- D.** 10
- e. None of these

*Difficulty: Easy*

## Chapter 002 Fractions

21. The first step in using the step approach to finding the greatest common divisor is to:
- a. Use observation method
  - b. Divide larger number into smaller number
  - C.** Divide numerator into denominator
  - d. Divide remainder into divisor
  - e. None of these

*Difficulty: Medium*

22. The first step in converting  $30/50 = ?/200$  to higher terms is to:
- a. Multiply 4 times 30
  - B.** Divide 200 by 50
  - c. Divide 50 by 200
  - d. Multiply 200 times 30
  - e. None of these

*Difficulty: Easy*

23.  $4/5 + 6/5$  equals:
- a.  $10/5$
  - b.  $5/1$
  - C.** 2
  - d. 100
  - e. None of these

*Difficulty: Easy*

24. In adding  $4/5 + 18/100$  the least common denominator is:
- a. 5
  - b. 20
  - c. 50
  - D.** 100
  - e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

25. Which of the following is not a prime number?

- a. 5
- b. 11
- c. 19
- D.** 24
- e. None of these

*Difficulty: Medium*

26. The LCD of  $\frac{6}{20}$ ,  $\frac{9}{5}$ ,  $\frac{7}{50}$  and  $\frac{3}{4}$ :

- a. 5
- b. 4
- c. 20
- d. 50
- E.** None of these

*Difficulty: Medium*

27. Canceling:

- a. Raises fractions to highest terms
- b. Results in multiplying a number evenly into the top and bottom of a fraction or fractions
- c. Has a definite set of rules
- D.** Is an alternative method to reducing fractions to lowest terms
- e. None of these

*Difficulty: Hard*

28. The reciprocal is used:

- a. In multiplying fractions
- b. To replace the cancellation method
- c. In dividing whole numbers
- D.** In dividing fractions
- e. None of these

*Difficulty: Easy*

## Chapter 002 Fractions

29. Which step is not included in the step approach to calculating the greatest common divisor:

- a. Divide small number into larger number
- b. Divide remainder into divisor of last step
- c. Continue dividing remainder into divisor till no remainder exist
- D.** Divide larger number into smaller number
- e. None of these

*Difficulty: Hard*

30. To find LCD by prime numbers you should:

- a. Take numerators and arrange in a row
- b. Divide numerators by highest prime number
- c. Continue division until no prime number will divide into at least 3 numbers
- D.** Your first step should be to take denominators and arrange in a row
- e. None of these

*Difficulty: Hard*

31. A trip to Portland, Oregon from Boston will take  $7\frac{3}{4}$  hours. Assuming we are  $\frac{2}{3}$  of the way there, how much longer in hours will the trip take?

- a.  $\frac{7}{12}$
- b.  $1\frac{7}{12}$
- C.**  $2\frac{7}{12}$
- d.  $2\frac{1}{2}$
- e. None of these

*Difficulty: Medium*



## Chapter 002 Fractions

32. Shelley Tilton bought  $1\frac{3}{4}$  lbs of sliced roast beef,  $8\frac{1}{2}$  lbs of sliced ham and  $\frac{3}{4}$  lb of cole slaw at Albertson's Market. What was the total weight of her purchases?

- A. 11 lbs
- b. 10 lbs
- c.  $9\frac{1}{2}$  lbs
- d. 12 lbs
- e. None of these

*Difficulty: Medium*

33. Joe Jackson worked 8 hours on Monday,  $4\frac{1}{4}$  hours on Tuesday,  $6\frac{1}{8}$  hours on Wednesday,  $7\frac{1}{4}$  hours on Thursday, and  $8\frac{1}{8}$  hours on Friday. Calculate the total number of hours Joe worked for the week.

- a. 35
- b.  $33\frac{1}{8}$
- c.  $32\frac{3}{4}$
- D.  $33\frac{3}{4}$
- e. None of these

*Difficulty: Medium*

34. Cartons of humidifiers are stocked in 25,500 sq. ft. of warehouse space at Home Depot. If each carton requires  $4\frac{1}{4}$  sq. ft. of space, how many cartons can be stored in this space?

- a. 60
- b. 600
- C. 6,000
- d. 60,000
- e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

35. At a local Subway, Jill Jones owns  $\frac{1}{4}$  of the company and Roger Moore  $\frac{1}{8}$ . Bill Moore owns the rest. What part is owned by Bill?

- a.  $\frac{1}{4}$
- b.  $\frac{1}{8}$
- c.  $\frac{3}{8}$
- D.**  $\frac{5}{8}$
- e. None of these

*Difficulty: Hard*

36. Matt Kaminsky bought a Volvo which is  $3\frac{3}{4}$  times as expensive as the car his parents bought. If his parents paid \$8,000 for theirs, what is the cost of Matt's car?

- a. \$26,000
- b. \$28,000
- c. \$29,000
- D.** \$30,000
- e. None of these

*Difficulty: Medium*

37. The price of a new Apple Ipod has increased by  $\frac{1}{4}$ . If the original price of the Apple was \$200, what is the new price today?

- a. \$150
- B.** \$250
- c. \$200
- d. \$175
- e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

38. The price of a Panasonic Flat Screen Television decreased by  $\frac{1}{5}$ . If the original price was \$1,500, what is the new price today?

- a. \$300
- B.** \$1,200
- c. \$1,800
- d. \$1,000
- e. None of these

*Difficulty: Medium*

39. Lisa Wolf has  $20\frac{1}{8}$  days of vacation per year at WalMart. To date she has taken  $4\frac{1}{2}$  in January,  $3\frac{1}{4}$  in February, and  $4\frac{1}{8}$  days in March. How much more vacation time is Lisa entitled to?

- a.  $9\frac{1}{4}$
- b.  $11\frac{7}{8}$
- C.**  $8\frac{1}{4}$
- d.  $8\frac{1}{2}$
- e. None of these

*Difficulty: Medium*

40. A machine at Staples Xeroxes  $12\frac{1}{4}$  pages per minute. If the machine runs 700 minutes, how many pages will be xeroxed?

- a. 8,750
- b. 7,850
- c. 5,875
- D.** 8,575
- e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

41. Jeff Jones is paid \$60 per day at his Job at J.C. Penney. Jeff became ill on Monday and had to leave after  $\frac{2}{5}$  of a day. What did he earn on Monday? (Assume no work, no pay)

- A. \$24
- b. \$36
- c. \$30
- d. \$25
- e. None of these

*Difficulty: Medium*

42. The price of a baseball Ticket at Yankee Stadium increased by  $2\frac{1}{4}$  over the last 3 years. If the original price of a ticket was \$60, what is the new price of the ticket today?

- a. \$195
- b. \$150
- C. \$135
- d. \$153
- e. None of these

*Difficulty: Medium*

43. Alice Hall, who loves to cook, makes an apple cake (serves 6) for her family. The recipe calls for  $2\frac{1}{2}$  pounds of apples,  $2\frac{1}{4}$  cups of flour,  $\frac{1}{5}$  cup of margarine,  $1\frac{1}{4}$  cups of sugar and 4 eggs. Since guests are coming, she would like to make this cake so it will serve 24. How many pounds of apples should she use?

- A. 10
- b. 15
- c.  $17\frac{1}{2}$
- d.  $10\frac{1}{4}$
- e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

44. In a recent, local taste contest testing Coke vs. Pepsi, it was found that  $\frac{3}{5}$  of all people surveyed preferred the taste of Coke. If 7,500 people were in the survey, how many chose Pepsi?
- a. 4,500
  - b. 5,400
  - c. 3,500
  - D.** 3,000
  - e. None of these

*Difficulty: Medium*

45. The price of a \$200,000 home listed by REMAX was reduced by  $\frac{1}{20}$ . What is the new price?
- a. \$180,000
  - B.** \$190,000
  - c. \$170,000
  - d. \$160,000
  - e. None of these

*Difficulty: Medium*

46. Mia Wong bought a new Bose Radio for \$280. Bill, a friend of Mia's, can only afford to pay  $\frac{3}{4}$  as much as Mia. What is the most Bill could pay for the radio?
- a. \$70
  - B.** \$210
  - c. \$200
  - d. \$190
  - e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

47. Jane Ring cut a 6ft Subway sandwich into  $1\frac{1}{2}$  ft sandwiches. How many sandwiches can be cut from the 6 ft. sub?

- a. 6
- b. 8
- c. 5
- d. 10
- E.** None of these

*Difficulty: Medium*

48. The price of a swatch watch increased  $1\frac{3}{4}$  times from the price last year. If this year's price is \$175, what was last year's price?

- a. \$75
- B.** \$100
- c. \$60
- d. \$90
- e. None of these

*Difficulty: Hard*

49. An American Airlines trip from Boston to Los Angeles takes  $8\frac{1}{2}$  hours. Assuming we are  $\frac{1}{4}$  of the way, how long has the trip taken so far?

- a.  $1\frac{1}{16}$
- b.  $7\frac{7}{16}$
- c.  $2\frac{1}{10}$
- d.  $6\frac{7}{16}$
- E.** None of these

*Difficulty: Medium*

## Chapter 002 Fractions

50. Lee Wine bought pizza from Pizza Hut for her son's party. The owner of the store said it would feed 8. Assuming 6 children show up for the party, what part of the pizza remains uneaten?

- A.  $1/4$
- b.  $3/4$
- c.  $1/3$
- d.  $4/5$
- e. None of these

*Difficulty: Medium*

## Chapter 002 Fractions

### Short Answer Questions

51. 1. Cancellation
  2. Denominator
  3. Fraction
  4. Greatest common divisor
  5. Higher terms
  6. Improper fraction
  7. Least common denominator (LCD)
  8. Lowest terms
  9. Mixed numbers
  10. Numerator
  11. Prime numbers
  12. Proper fractions
  13. Reciprocal
- 
- A. Largest possible number.
  - B. No number divides evenly except one into numerator.
  - C. Expresses a part of a whole number.
  - D. Whole number and a proper fraction.
  - E. Top of fraction.
  - F. Equivalent to the original.
  - G. Numerator less than denominator.
  - H. Reducing process.
  - I. Interchanging denominator and numerator.
  - J. Smallest whole number.
  - K. Numerator is equal to or greater than the denominator.
  - L. Number divisible by itself and one.
  - M. Bottom part of fraction.

1.H 2.M 3.C 4.A 5.F 6.K 7.J 8.B 9.D 10.E 11.L 12.G 13.I

*Difficulty: Medium*

52. Indicate type of fraction:

$3\frac{4}{7}$

Mixed

*Difficulty: Easy*



## Chapter 002 Fractions

53. Indicate type of fraction:

$\frac{6}{7}$

Proper

*Difficulty: Easy*

54. Indicate type of fraction:

$\frac{10}{9}$

Improper

*Difficulty: Easy*

55. Convert to a mixed number

$\frac{89}{6}$

$14 \frac{5}{6}$

*Difficulty: Medium*

56. Convert to an improper fraction

$14 \frac{1}{8}$

$\frac{113}{8}$

*Difficulty: Medium*

## Chapter 002 Fractions

57. A. Find greatest common divisor and  
B. Convert to lowest terms. For (A) use the step approach or the observation method.  
 $18/66$

A. \_\_\_\_\_

B. \_\_\_\_\_

A. 6; B.  $3/11$

*Difficulty: Hard*

58. Convert to higher terms  
 $8/9 = 96/?$

108

*Difficulty: Easy*

59. Add (Reduce to lowest terms)  
 $6/15 + 2/15$

$8/15$

*Difficulty: Easy*

60. Add (Reduce to lowest terms)  
 $1/7 + 5/14$

$7/14 = 1/2$

*Difficulty: Medium*

## Chapter 002 Fractions

61. Find LCD by using Prime Numbers (show work)

$$\frac{1}{8} + \frac{1}{4} + \frac{1}{3} + \frac{1}{6}$$

24

*Difficulty: Medium*

62. Subtract (Reduce to lowest terms if necessary)

$$13 \frac{1}{7} - 5 \frac{5}{21}$$

$7 \frac{19}{21}$

*Difficulty: Hard*

63. Multiply (Cancel as needed)

$$11 \frac{3}{8} \times 6 \frac{6}{7}$$

78

*Difficulty: Medium*

64. At Victor's grocery, each case of Cherrios takes up  $3 \frac{1}{2}$  square feet. If Victor sets aside 6,930 square feet, how many cases of Cherrios can Victor store?

1980

*Difficulty: Medium*

## Chapter 002 Fractions

65. On a plane trip to Hawaii, the baggage weight projected was  $2,182 \frac{1}{4}$  lbs. The actual weight of all bags totaled  $2,095 \frac{1}{3}$  lbs. By how much was the projected weight overstated?

86  $\frac{11}{12}$  lbs.

*Difficulty: Hard*

66. Acme Track Incorporated received 360 pairs of Nike running shoes. Each pair sells for \$58. Acme found  $\frac{1}{9}$  of the pairs to be defective and returned them. Assuming each pair cost Acme \$26, what profit did Acme make assuming all non-defective sneakers were sold?

\$10,240

*Difficulty: Medium*

67. Last year sales at Mel's cinema totaled \$144,600. This year sales should increase by  $\frac{1}{3}$ . How much should sales increase by and what will sales be in the New Year?

\$48,200; \$192,800

*Difficulty: Medium*

68. Indicate type of fraction:

$3 \frac{3}{4}$

Mixed

*Difficulty: Easy*

## Chapter 002 Fractions

69. Indicate type of fraction:

$$\frac{5}{6}$$

Proper

*Difficulty: Easy*

70. Indicate type of fraction:

$$\frac{10}{9}$$

Improper

*Difficulty: Easy*

71. Convert to a mixed number

$$\frac{113}{6}$$

$$18\frac{5}{6} \quad 6 \overline{)113} \text{ Rem } 5$$

*Difficulty: Easy*

72. Convert to an improper fraction

$$9\frac{1}{8}$$

$$\frac{73}{8} \quad \frac{72 + 1}{8}$$

*Difficulty: Easy*

## Chapter 002 Fractions

73. Calculate greatest common divisor by step approach and reduce to lowest terms  
180/440

$$\begin{array}{ccccc}
 20 & \frac{9}{22} & 180 \overline{)440} & \xrightarrow{\quad} & 80 \overline{)180} & \xrightarrow{\quad} & 20 \overline{)80} \\
 & & \frac{360}{80} & & \frac{160}{20} & & \frac{80}{0}
 \end{array}$$

$$\frac{180 \div 20}{440 \div 20} = \frac{9}{22}$$

*Difficulty: Hard*

74. Convert to higher terms  
7/19 = ?/114

$$114 \div 19 = 6; 6 \times 7 = 42$$

*Difficulty: Medium*

75. Find LCD by using prime numbers (show work)  
1/2 + 1/6 + 1/8 + 1/4

$$\begin{array}{l}
 2 \left| \begin{array}{cccc} 2 & 6 & 8 & 4 \end{array} \right. \\
 2 \left| \begin{array}{cccc} 1 & 3 & 4 & 2 \end{array} \right. \\
 \begin{array}{cccc} 1 & 3 & 2 & 1 \\ 2 \times 2 \times 1 \times 3 \times 2 \times 1 = 24 \end{array}
 \end{array}$$

*Difficulty: Hard*

## Chapter 002 Fractions

$$76. \frac{5}{9} \div 5$$

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

*Difficulty: Medium*

77. At Flynn Manufacturing,  $30 \frac{1}{4}$  rolls of tape are made each hour on a new high speed machine. If the machine runs 12 hours, how many rolls of tape will be produced?

$$30 \frac{1}{4} \times 12 = \frac{121}{\cancel{4}} \times \cancel{12}^3 = 363 \text{ rolls of tape}$$

*Difficulty: Medium*

78. At Kentucky Fried chicken, a survey showed  $\frac{2}{3}$  of all people preferred skinless chicken over the regular chicken. If 2,400 people responded to the survey, how many preferred regular chicken?

$$\frac{1}{3} \times 2,400 = 800$$

*Difficulty: Medium*

## Chapter 002 Fractions

79. At United Airlines, Pete Roy worked  $8\frac{3}{4}$  hours on Monday,  $4\frac{1}{2}$  hours on Tuesday,  $9\frac{1}{4}$  hours on Wednesday,  $10\frac{1}{2}$  hours on Thursday and 7 hours on Friday. How many total hours did Pete work during the week?

$$8\frac{3}{4} + 4\frac{2}{4} + 9\frac{1}{4} + 10\frac{2}{4} + 7 = 38\frac{8}{4} = 40 \text{ hours}$$

*Difficulty: Medium*

80. The Red Sox announced that their \$50 box seats will increase next year by  $\frac{1}{5}$ . What will be the new ticket price?

$$\$50 \times 1\frac{1}{5} = \frac{\$50}{1} \times \frac{6}{5} = \frac{300}{5} = \$60$$

*Difficulty: Medium*

81. Indicate type of fraction:

$3\frac{1}{8}$

Mixed

*Difficulty: Easy*

82. Indicate type of fraction:

$\frac{6}{7}$

Proper

*Difficulty: Easy*



## Chapter 002 Fractions

83. Indicate type of fraction:

$12/11$

Improper

*Difficulty: Easy*

84. Indicate type of fraction:

$5/6$

Proper

*Difficulty: Easy*

85. Indicate type of fraction:

$15/14$

Improper

*Difficulty: Easy*

86. Indicate type of fraction:

$12 \frac{9}{10}$

Mixed

*Difficulty: Easy*

## Chapter 002 Fractions

87. Convert to a mixed number:

$$88/7$$

$$12 \frac{4}{7}$$

*Difficulty: Easy*

88. Convert to a mixed number:

$$77/3$$

$$25 \frac{2}{3}$$

*Difficulty: Easy*

89. Convert to an improper fraction:

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

$$85/7$$

*Difficulty: Easy*

90. A. Find greatest common divisor and

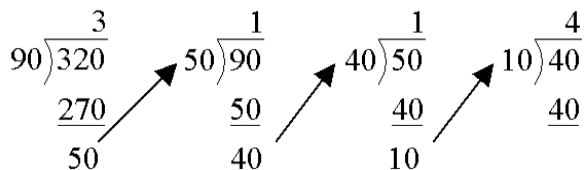
B. Convert to lowest terms. For (A) use the step approach or the observation method.

$$90/320$$

A. 10

B.  $\frac{9}{32}$

$$\frac{90 \div 10}{320 \div 10} = \frac{9}{32}$$



*Difficulty: Hard*

## Chapter 002 Fractions

91. Convert to an improper fraction

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

$$100/9$$

*Difficulty: Easy*

92. A. Find greatest common divisor and

B. Convert to lowest terms. For (A) use the step approach or the observation method.

$$12/96$$

$$\text{A. } 12 \quad \text{B. } \frac{1}{8} \quad 12 \overline{)96}$$
$$\underline{96}$$

*Difficulty: Hard*

$$93. \frac{8}{9} = 72/?$$

$$\frac{78}{81}$$

$$\frac{8}{9}$$

$$= \frac{72}{81}$$

The 72 is  $9 \times 8 = 72$

$$9 \times 9 = 81$$

*Difficulty: Easy*

$$94. \frac{3}{4} = 36/?$$

$$36/48$$

*Difficulty: Easy*

## Chapter 002 Fractions

95. Add (Reduce to lowest terms):

$$\frac{4}{15} + \frac{1}{15}$$

$$\frac{1}{3}; \frac{5}{15} = \frac{1}{3}$$

*Difficulty: Easy*

96. Add (Reduce to lowest terms):

$$\frac{2}{7} + \frac{3}{14}$$

$$\frac{1}{2}; \frac{4}{14} + \frac{3}{14} = \frac{7}{14} = \frac{1}{2}$$

*Difficulty: Medium*

97. Add (Reduce to lowest terms):

$$\frac{3}{7} + \frac{1}{21}$$

$$\frac{10}{21}$$

*Difficulty: Easy*

98. Add (Reduce to lowest terms):

$$\frac{4}{7} + \frac{13}{14}$$

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

*Difficulty: Medium*

## Chapter 002 Fractions

99. Find LCD by using Prime Numbers (show work):

$$\frac{1}{2} + \frac{1}{5} + \frac{1}{4} + \frac{1}{20}$$

20	2	2	5	4	20	
	2	1	5	2	10	
	5	1	5	1	5	$2 \times 2 \times 5 = 20$
		1	1	1	1	

*Difficulty: Medium*

100. Find LCD by using Prime Numbers (show work):

$$\frac{1}{3} + \frac{1}{4} + \frac{1}{6} + \frac{1}{8}$$

24	2	3	4	6	8
	2	3	2	3	4
	3	3	1	3	2
		1	1	1	2

*Difficulty: Medium*

## Chapter 002 Fractions

101. Subtract (reduce to lowest terms if necessary):

$$\begin{array}{r} 12 \frac{1}{8} \\ - 9 \frac{2}{3} \\ \hline \end{array}$$

$$2 \frac{11}{24}$$

$$\begin{array}{r} 12 \frac{3}{24} \\ - 9 \frac{16}{24} \\ \hline \end{array} \quad \begin{array}{r} 11 \frac{27}{24} \\ - 9 \frac{16}{24} \\ \hline \end{array}$$

*Difficulty: Hard*

102. Subtract (reduce to lowest terms if necessary):

$$\begin{array}{r} 14 \frac{1}{4} \\ - 3 \frac{3}{4} \\ \hline \end{array}$$

$$10 \frac{1}{2} \left( 13 \frac{5}{4} - 3 \frac{3}{4} \right)$$

*Difficulty: Hard*

103. Multiply (cancel as needed, express final answer as a mixed number).

$$12 \frac{3}{8} \times 7 \frac{1}{6}$$

$$88 \frac{11}{16}; \quad 12 \frac{3}{8} \times 7 \frac{1}{6} = \frac{99}{8} \times \frac{43}{6} = \frac{1,419}{16}$$

*Difficulty: Medium*

## Chapter 002 Fractions

104. John Morse worked  $8\frac{1}{2}$  hours on Monday,  $2\frac{3}{4}$  hours on Tuesday,  $7\frac{1}{2}$  hours on Wednesday,  $7\frac{1}{4}$  hours on Thursday, and 8 hours on Friday. Calculate the total number of hours John worked for the week.

$$34 \text{ hours; } 8\frac{2}{4} + 2\frac{3}{4} + 7\frac{2}{4} + 7\frac{1}{4} + 8$$

*Difficulty: Medium*

105. Al, Ronda, and Rony enter into a partnership. Al owns  $\frac{1}{4}$  of the company, and Ronda  $\frac{1}{8}$ . Calculate what part is owned by Rony.

$$\frac{5}{8} \text{ for Rony; } \frac{2}{8} + \frac{1}{8} = \frac{3}{8}; 1 - \frac{3}{8}$$

*Difficulty: Medium*

106. Hilton Hotels announced a decrease of  $\frac{1}{10}$  from its \$290 weekend package. What is the new weekend package rate?

$$\$261 \left( \$290 \times \frac{9}{10} \right)$$

*Difficulty: Medium*

107. Bill Murray has  $16\frac{3}{4}$  days of vacation per year. To date, he has taken  $1\frac{3}{4}$  days in January,  $4\frac{2}{3}$  days in February, and  $2\frac{1}{6}$  days in March. How much more vacation time is Bill entitled to?

$$8\frac{1}{6} \text{ days remain } 1\frac{9}{12} + 4\frac{8}{12} + 2\frac{2}{12} = 7\frac{19}{12} = 8\frac{7}{12}; 16\frac{9}{12} - 8\frac{7}{12} = 8\frac{2}{12}$$

*Difficulty: Medium*

## Chapter 002 Fractions

108. A trip to New York from Boston will take  $4\frac{1}{2}$  hours. Assuming we are  $\frac{2}{3}$  the way there, how much longer will the trip take?

$$1\frac{1}{2} \text{ hours } \frac{1}{3} \times \frac{9}{2} = \frac{9}{6} = 1\frac{3}{6}$$

*Difficulty: Medium*

109. The price of a new car increased by  $\frac{2}{3}$  over the last 5 years. If the original price of the car was \$6,000, what is the new price today?

$$\$10,000 \quad 1\frac{2}{3} \times \$6,000 = \frac{5}{3} \times \$6,000$$

*Difficulty: Hard*

110. Mel Corp. produces  $18\frac{1}{4}$  widgets each hour. If the machine runs 16 hours, how many widgets will be produced?

$$292 \left( \frac{73}{4} \times 16 \right)$$

*Difficulty: Medium*

111. Cans of soup are stocked in 1,250 sq. ft. of warehouse space. If each can requires  $2\frac{1}{2}$  sq. ft. of space, how many cans of soup can be stored in this space?

$$500 \text{ cans } \left( 1,250 \div \frac{5}{2} = 1,250 \times \frac{2}{5} = \frac{2,500}{5} \right)$$

*Difficulty: Medium*



## Chapter 002 Fractions

112. John Rone bought a home which is  $5 \frac{1}{2}$  times as expensive as the home his parents bought. If his parents paid \$35,000 for theirs, what is the cost of Rone's home?

$$\$192,500 \left( \frac{11}{2} \times \$35,000 \right)$$

*Difficulty: Medium*

113. In a recent taste testing survey, it was found that  $\frac{5}{7}$  of all people surveyed preferred the taste of "A" chicken over "B" chicken. If 3,500 people were in the survey, how many favored "A"? What is the number of people who chose "B"?

A.  $\frac{5}{7} \times 3,500 = 2,500$

B.  $\frac{2}{7} \times 3,500 = 1,000$

*Difficulty: Medium*