Test Bank for Practical Business Math Procedures 14th Edition by Slater

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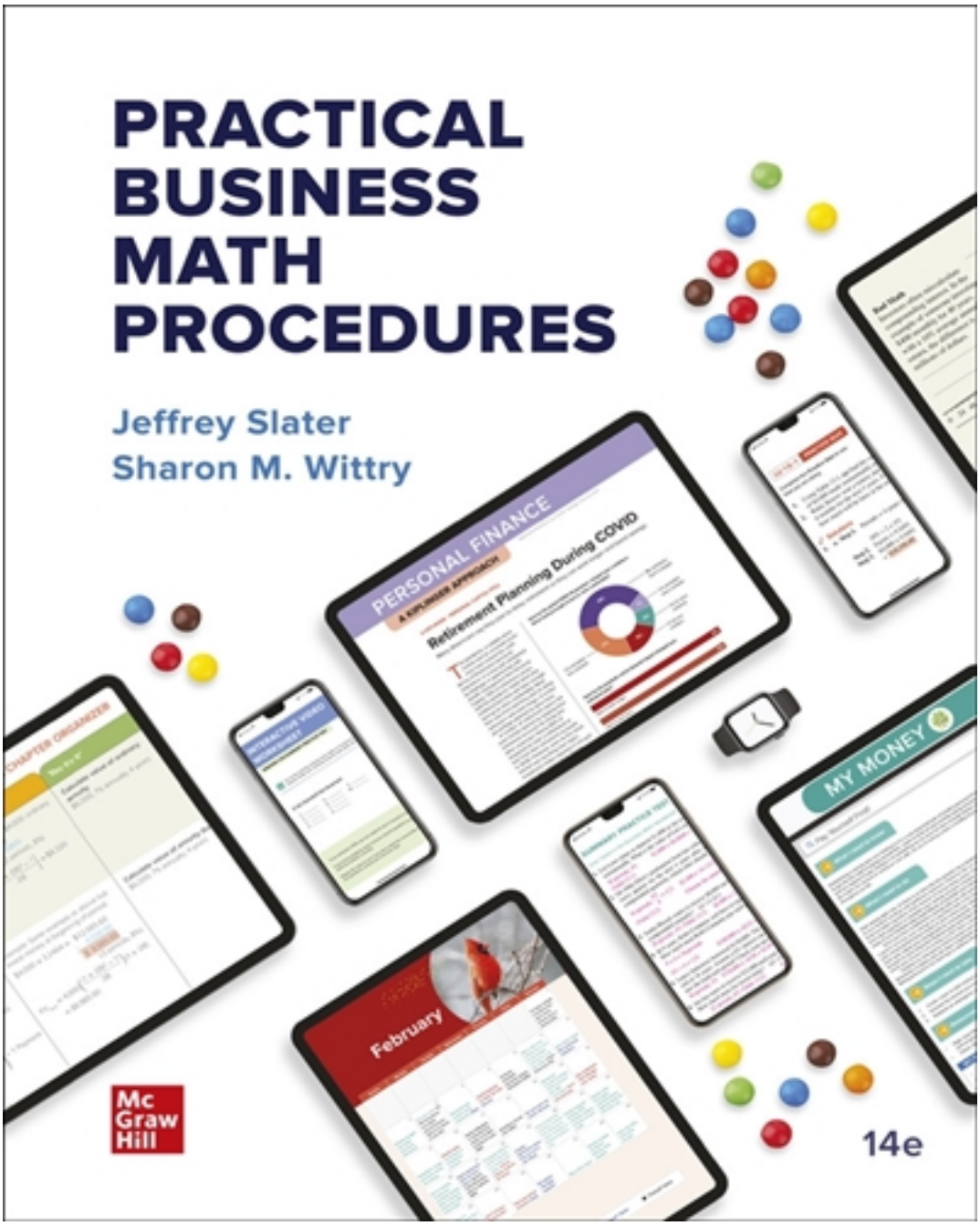

Test Bank

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CORRECT ANSWERS ARE LOCATED IN THE 2ND HALF OF THIS DOC.

TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.

1) A proper fraction is when the numerator is greater than the denominator.
   - ◎ true
   - ◎ false

2) The writing of a whole number and a proper fraction is an improper fraction.
   - ◎ true
   - ◎ false

3) $\frac{4}{5}$ is a proper fraction.</p>
   - ◎ true
   - ◎ false

4) When a mixed number is converted to an improper fraction, the new numerator is placed over the old denominator.
   - ◎ true
   - ◎ false

5) The greatest common divisor can be zero.
   - ◎ true
   - ◎ false

6) Inspection as well as the step approach could be used to find the least common denominator.
   - ◎ true
   - ◎ false

7) In the step approach the last divisor used is the greatest common divisor.
   - ◎ true
   - ◎ false

8) Fractions should never be reduced to their lowest terms.
   - ◎ true
   - ◎ false

9) The greatest common divisor and the least common denominator are really the same.
   - ◎ true
   - ◎ false

10) The least common denominator of fractions can be found by observation or by the use of prime numbers.
   - ◎ true
   - ◎ false

11) 4 is a prime number.
   - ◎ true
   - ◎ false

12) 2, 5, 7, 11, and 13 are all examples of prime numbers.
   - ◎ true
   - ◎ false

13) Cancellation is a technique to reduce fractions to the lowest terms.
   - ◎ true
   - ◎ false

14) The reciprocal is not used in dividing fractions.
   - ◎ true
   - ◎ false

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15) Reducing a fraction to the lowest terms does not change the fraction's value.
- ◎ true
- ◎ false

16) Raising a fraction to higher terms does change the value of the fraction.
- ◎ true
- ◎ false

17) A mixed number is a whole number and a proper fraction.
- ◎ true
- ◎ false

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

18) 1 4/5 is an example of a(n):
- A) Proper fraction
- B) Mixed number
- C) Improper fraction
- D) Complex fraction
- E) None of these

19) $\frac{13}{2}$ converted to a 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

20) The greatest common divisor of $\frac{20}{30}$ is:
- A) 2
- B) 5
- C) 1
- D) 10
- E) 3

21) The first step in using the step approach to finding the greatest common divisor is to:
- A) Use the observation method
- B) Divide the larger number into the smaller number
- C) Divide the numerator into the denominator
- D) Divide the remainder into the divisor
- E) Subtract the numerator from the denominator

22) The first step in converting $\frac{30}{50} = \frac{?}{200}$ 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

23) $\frac{4}{5} + \frac{6}{5}$ equals:
- A) $\frac{10}{5}$
- B) $\frac{5}{1}$
- C) 2
- D) 100
- E) None of these

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24) In adding $\frac{4}{5} + \frac{18}{100}$ the least common denominator is:
- A) 5
- B) 20
- C) 50
- D) 100
- E) 500

25) Which of the following is not a prime number?
- A) 5
- B) 11
- C) 19
- D) 24
- E) 2

26) The LCD of $\frac{6}{20}, \frac{9}{5}, \frac{7}{50}$, and $\frac{3}{4}$ is:
- A) 5
- B) 4
- C) 20
- D) 50
- E) 100

27) The cancellation method:
- A) Raises fractions to the highest terms
- B) Results in multiplying a number evenly by the numerator and denominator of a fraction or fractions
- C) Has a definite set of rules
- D) Is an alternative method to reducing fractions to the lowest terms
- E) None of these

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) In adding 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 exists
- D) Divide larger number into smaller number
- E) None of these

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 three numbers
- D) Take denominators and arrange in a row
- E) None of these

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31) A trip to Portland, Oregon, from Boston will take $7\ \frac{3}{4}$ hours. Assuming Shahik is two-thirds 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

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

A) 11 lbs
B) 10 lbs
C) $9\ \frac{1}{2}$ lbs
D) 12 lbs
E) None of these

33) Bryce worked 8 hours on Monday, $4\ \frac{1}{4}$ hours on Tuesday, 6 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 Bryce 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

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) 5,100

35) At a local Subway, Huy owns $\frac{1}{4}$ of the company and Davis owns $\frac{1}{8}$. Morah owns the rest. What part is owned by Morah?

A) $\frac{1}{4}$
B) $\frac{1}{8}$
C) $\frac{3}{8}$
D) $\frac{5}{8}$
E) None of these

36) Keneesha bought a Volvo that is $3\ \frac{3}{4}$ times as expensive as her parent's car. If her parents paid $15,000 for their car, what is the cost of Keneesha's car?

A) $45,000
B) $60,000
C) $30,000
D) $25,000
E) $56,250

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37) The price of a new Apple iPad has increased by $\frac{1}{4}$. If the original price of the iPad was $500, what is the price today?
A) $550
B) $625
C) $600
D) $575
E) $125

38) The price of a Panasonic 3D flat screen television decreased by $\frac{1}{5}$. If the original price was $1,500, what is the price today?
A) $300
B) $1,200
C) $1,800
D) $1,000
E) $1,400

39) Liam has $20\ \frac{1}{8}$ days of vacation per year at Walmart. To date Liam has taken $4\ \frac{1}{2}$ days in January, $3\ \frac{1}{4}$ days in February, and $4\ \frac{1}{8}$ days in March. How much more vacation time is Liam 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

40) A machine at Staples photocopies $12\ \frac{1}{4}$ pages per minute. If the machine runs 700 minutes, how many pages will be photocopied?
A) 8,750
B) 7,850
C) 5,875
D) 8,575
E) 7,500

41) Elora is paid $130 per day at J.C. Penney. Elora became ill on Monday and had to leave after $\frac{2}{5}$ of a day. What did Elora earn on Monday? (Assume no work, no pay.)
A) $52
B) $50
C) $78
D) $36
E) $60

42) The price of a baseball ticket at Yankee Stadium increased by $2\ \frac{1}{5}$ over the last three years. If the original price of a ticket was $60, what is the price of the ticket today?
A) $172
B) $150
C) $144
D) $132
E) $130

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43) Onyx, who loves to cook, makes an apple cake (serves six). 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, Onyx would like to make this cake so it will serve 24. How many pounds of apples does Onxy need?

A) 10
B) 15
C) $17\ \frac{1}{2}$
D) $10\ \frac{1}{4}$
E) None of these

44) In a recent local taste contest testing Coke against 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

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) $10,000
C) $170,000
D) $160,000
E) None of these

46) Mia bought a new monitor for $280. Ben, a friend of Mia's, can afford to pay only $\frac{3}{4}$ as much as Mia. What is the most Ben could pay for the radio?

A) $70
B) $210
C) $200
D) $190
E) None of these

47) Cho cut a 6-ft. 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) 4

48) The price of an Apple watch increased $1\ \frac{3}{4}$ times from the price last year. If this year's price is $475, what was last year's price (round to the nearest cent)?

A) $175.34
B) $271.43
C) $280.55
D) $240.14
E) $223.42

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49) An American Airlines trip from Boston to Los Angeles takes $8\frac{1}{2}$ hours. Assuming a flight has gone $\frac{1}{4}$ 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) $2\ \frac{1}{8}$

50) Lucy buys three pizzas for a birthday party. Each pizza has eight servings. Sixteen people eat pizza at the party (assume each has one serving). What part of the pizza remains uneaten?
A) $\frac{1}{3}$
B) $\frac{1}{4}$
C) $\frac{2}{3}$
D) $\frac{3}{4}$
E) $\frac{4}{5}$

51) The greatest common divisor of $\frac{60}{216}$ is:
A) 2
B) 12
C) 10
D) 5
E) 6

52) The LCD for $\frac{3}{10}$, $\frac{20}{25}$, and $\frac{18}{75}$ is:
A) 150
B) 750
C) 250
D) 5
E) 500

53) Jordan travelled $\frac{6}{7}$ of an estimated 1,800-mile trip. How many miles remain in the trip?
A) 154
B) 257
C) 291
D) 400
E) 350

54) The average cost of a ticket to the 2021 World Series Game 1 was $1200. The average cost in 2022 increased by $\frac{1}{5}$. What was the cost in 2022?
A) $1,000
B) $1,400
C) $240
D) $1,440
E) None of these

55) The average number of students for Professor Shannon's finance class was 20. During the fall semester there was an increase of $\frac{3}{5}$ in students. How many students are registered for his class in the fall?
A) 32
B) 24
C) 30
D) 26
E) None of these

56) $15\ \frac{3}{8}$ converted to an improper fraction is:
A) $\frac{120}{8}$
B) $\frac{123}{8}$
C) $\frac{123}{15}$
D) $\frac{123}{3}$
E) None of these

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57) $\frac{49}{5}$ converted to a mixed number is:
- A) $5\ \frac{4}{9}$
- B) $9\ \frac{5}{4}$
- C) $9\ \frac{4}{5}$
- D) $4\ \frac{5}{9}$
- E) None of these

58) Chanelle has $45\ \frac{1}{2}$ days of vacation per year. To date Chanelle has taken $6\ \frac{2}{3}$ days in February, $7\ \frac{5}{6}$ days in April, and $2\ \frac{3}{8}$ days in July. How much more vacation time is Chanelle entitled to for the year?
- A) $29\ \frac{1}{4}$
- B) $20\ \frac{7}{8}$
- C) $28\ \frac{5}{8}$
- D) $28\ \frac{1}{2}$
- E) None of these

59) The greatest common divisor of $\frac{320}{480}$ is:
- A) 2
- B) 160
- C) 32
- D) 320
- E) 10

60) The average cost of a small bottle of hand sanitizer in February 2020 was $2. In April 2020, due to COVID-19, the price increased by $3\ \frac{1}{2}$ times. What was the average cost in April 2020 for a small bottle of hand sanitizer?
- A) $4
- B) $5
- C) $6
- D) $7
- E) None of these

61) $1\ \frac{4}{5}$ is an example of a(n):</p>
- A) Proper fraction
- B) Mixed number
- C) Improper fraction
- D) Complex fraction
- E) None of these

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

62) Indicate type of fraction:
$3\frac{4}{7}$

63) Indicate type of fraction:
$\frac{6}{7}$

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64) Indicate type of fraction: $\frac{10}{9}$

65) Convert to a mixed number: $\frac{89}{6}$

66) Convert to an improper fraction: $14\frac{1}{8}$

67) Given $\frac{18}{66}$.

A. Find greatest common divisor (use the step approach or the observation method).
B. Convert to lowest terms.

68) Convert to higher terms: $\frac{8}{9} = \frac{96}{?}$

69) Add (reduce to lowest terms): $\frac{6}{15} + \frac{2}{15}$

70) Add (Reduce to lowest terms): $\frac{1}{7} + \frac{5}{14}$

71) Find LCD by using prime numbers (show work): $\frac{1}{8} + \frac{1}{4} + \frac{1}{3} + \frac{1}{6}$

72) Subtract (reduce to lowest terms if necessary): $13\frac{1}{7} - 5\frac{5}{21}$

73) Multiply (cancel as needed): $11\frac{3}{8} \times 6\frac{6}{7}$

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

75) On a plane trip to Hawaii, the baggage weight projected was $2,182\frac{1}{4}$ pounds. The actual weight of all bags totaled $2,095\frac{2}{5}\frac{1}{3}$ pounds. By how much was the projected weight overstated?

76) 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? (profit = sales − cost)

77) Last year's sales at Mimi's Cinema totalled $144,600. This year's sales should increase by $\frac{1}{3}$. How much should sales increase by, and what will sales be in the new year?

78) Indicate the type of fraction: $3\frac{3}{4}$

79) Indicate the type of fraction: $\frac{5}{6}$

80) Indicate type of fraction: $\frac{10}{9}$

81) Convert to a mixed number: $\frac{113}{6}$

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82) Convert to an improper fraction: $9\frac{1}{8}$

83) Calculate greatest common divisor by step approach and reduce to lowest terms: $\frac{180}{440}$

84) Convert to higher terms: $\frac{7}{19} = \frac{?}{114}$

85) Find LCD by using prime numbers (show work): $\frac{2}{5} + \frac{3}{7} + \frac{2}{9}$

86) $\frac{5}{9} \div 5 =$

87) 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?

88) 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?

89) At United Airlines, Terrell 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?

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

91) Indicate the type of fraction: $3\frac{1}{8}$

92) Indicate the type of fraction: $\frac{6}{7}$

93) Indicate the type of fraction: $\frac{12}{11}$

94) Indicate the type of fraction: $\frac{5}{6}$

95) Indicate the type of fraction: $\frac{15}{14}$

96) Indicate the type of fraction: $12\frac{9}{10}$

97) Convert to a mixed number: $\frac{88}{7}$

98) Convert to a mixed number: $\frac{77}{3}$

99) Convert to an improper fraction: $12\frac{1}{7}$

A. Find greatest common divisor (use the step approach or the observation method).
B. Convert to lowest terms.

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100) <p>Convert to an improper fraction: $11\frac{1}{9}$

101) <p>Given $\frac{12}{96}$
A. Find greatest common divisor (use the step approach or the observation method).
B. Convert to lowest terms.

102) $\frac{8}{9} = \frac{72}{?}$

103) $\frac{3}{4} = \frac{36}{?}$

104) <p>Add (reduce to lowest terms): $\frac{4}{15} + \frac{1}{15}$

105) <p>Add (reduce to lowest terms): $\frac{2}{7} + \frac{3}{14}$

106) <p>Add (reduce to lowest terms): $\frac{3}{7} + \frac{1}{21}$

107) <p>Subtract (reduce to lowest terms): $\frac{15}{16} - \frac{17}{20}$

108) <p>Find LCD by using prime numbers (show work): $\frac{1}{2} + \frac{1}{5} + \frac{1}{4} + \frac{1}{20}$

109) <p>Find LCD by using prime numbers (show work): $\frac{1}{3} + \frac{1}{4} + \frac{1}{6} + \frac{1}{8}$

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110) Subtract (reduce to lowest terms if necessary): $12\frac{1}{8} - 9\frac{2}{3}$

111) Subtract (reduce to lowest terms if necessary): $14\frac{1}{4} - 3\frac{3}{4}$

112) Multiply (cancel as needed and express final answer as a mixed number): $12\frac{3}{8} \times 7\frac{1}{6}$

113) Kendall worked $2\frac{1}{2}$ times more on Tuesday than on Monday. On Monday, Kendall worked $5\frac{1}{3}$ hours. How many hours did Kendall work on Tuesday?

114) Alicia, Ronda, and Rho enter into a partnership. Alicia owns $\frac{1}{4}$ of the company, and Ronda owns $\frac{1}{8}$. Calculate the part that is owned by Rho.

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

116) Micah has already used $15\frac{3}{4}$ days of vacation, out of 30 allotted days for the year. How many days of vacation does Micah have left for the year?

117) Jean is taking a trip from Boston to New York, which normally takes $4\frac{1}{2}$ hours. Jeanine is $\frac{2}{3}$ of the way to New York. How much time is left for her trip?

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118) The price of a new car increased by $\frac{2}{3}$ over the last five years. If the original price of the car was $27,000, what is the price today?

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

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

121) Josiah bought a home that is $2\frac{1}{2}$ times as expensive as the home his parents bought. If his parents paid $80,000 for theirs, what is the cost of John's home?

122) 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"? How many favored “B”?

123) Convert to an improper fraction: $16\frac{3}{8}$

124) Indicate the type of fraction: $12\frac{4}{7}$

125) Complete: $10\frac{1}{8}$ divided by $\frac{3}{8}$

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126) <p>At Truman Middle School, $\frac{2}{3}$ of the 7^{th} graders surveyed preferred playing capture the flag at gym. If 600 7th graders responded to the survey, how many preferred playing something else?

127) <p>Reduce the following to the lowest terms: $\frac{162}{567}$

128) <p>Indicate the type of fraction: $\frac{11}{131}$

129) <p>Subtract (reduce to lowest terms): $\frac{7}{15} - \frac{2}{15}$

130) <p>Subtract (reduce to lowest terms): $\frac{15}{32} - \frac{3}{8}$

131) <p>Multiply (cancel as needed and express final answer as a mixed number): $\frac{1}{3} \times \frac{1}{9}$

132) <p>Multiply (cancel as needed and express final answer as a mixed number): $\frac{3}{8} \times \frac{5}{12}$

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Answer Key

Test name: Chapter 02

1) FALSE
A proper fraction is when the numerator is smaller than the denominator.

2) FALSE
The writing of a whole number and a proper fraction is a mixed number.

3) TRUE
Review your notes on terminology and vocabulary related to this material.

4) TRUE
Review your notes on terminology and vocabulary related to this material.

5) FALSE
The greatest common divisor cannot be zero.

6) TRUE
Review your notes on terminology and vocabulary related to this material.

7) TRUE
Review your notes on terminology and vocabulary related to this material.

8) FALSE
Fractions should always be reduced to their lowest terms.

9) FALSE
The least common multiple and the least common denominator are the same number.

10) TRUE
Review your notes on terminology and vocabulary related to this material.

11) FALSE
4 is a composite number.

12) TRUE
Prime numbers contain divisors of 1 and themselves only.

13) TRUE
Review your notes on terminology and vocabulary related to this material.

14) FALSE
The reciprocal is used in dividing fractions.

15) TRUE
Review your notes on terminology and vocabulary related to this material.

16) FALSE
Raising a fraction to higher terms does not change the value of the fraction.

17) TRUE
Review your notes on terminology and vocabulary related to this material.

18) B
Mixed numbers contain a whole number and a proper fraction.

19) B
$\frac{13}{2} = 6\ R\ 1$

20) D
The largest number that goes into both is 10.

21) C

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The first step in the step approach is to divide the numerator into the denominator.

22) B
First take 200 divided by 50.

23) C
$\frac{4}{5}+\frac{6}{5}=\frac{10}{5}=\frac{2}{1}=2$

24) D
Since 5 goes into 100, then 100 is the LCD.

25) D
24 has divisors of 1, 2, 3, 4, 6, 8, 12, and 24.

26) E
100 is the smallest number 20, 5, 50, and 4 all go into.

5	20	5	50	4
2	4	1	10	4
5	2	1	5	2
	1	1	5	1

So, the LCD = 5 x 2 x 2 x 1 x 1 x 5 x 1 = 100.

27) D
In the cancellation method, reduce the fraction by finding a number that goes into the numerator and the denominator.

28) D
In fraction division, the first step is to multiply by the reciprocal.

29) D
Review the steps of this approach.

30) D
Review steps for finding LCD using this method.

31) C
$7\ \frac{3}{4}\times\frac{1}{3}=\frac{31}{4}\times\frac{1}{3}=\frac{31}{12}=2\ \frac{7}{12}$ hours

32) A
$1\ \frac{3}{4}+8\ \frac{1}{2}+\frac{3}{4}=1\ \frac{3}{4}+8\ \frac{2}{4}+\frac{3}{4}=9\ \frac{8}{4}=9+2=11$ h

33) D
$8+4\ \frac{1}{4}+6\ \frac{1}{8}+7\ \frac{1}{4}+8\ \frac{1}{8}=8\ \ \frac{0}{8}+4\ \frac{2}{8}+6\ \frac{1}{8}+7\ \frac{2}{8}$

34) C
$\frac{25,500}{1}\div 4\ \frac{1}{4}=\frac{25,500}{1}\div\frac{17}{4}=\frac{25,500}{1}\times\frac{4}{17}=\frac{102,000}{17}=\frac{6000}{1}$

35) D
$1-\frac{1}{4}-\frac{1}{8}=\frac{8}{8}-\frac{2}{4}-\frac{1}{8}=\frac{5}{8}=$ portion owned by Mor

36) E
$3\ \frac{3}{4}\times 15,000=\frac{15}{4}\times\frac{15,000}{1}=\frac{225,000}{4}=56,250$

37) B
Price Increase: $500\times\frac{1}{4}=\frac{500}{1}\times\frac{1}{4}=\frac{500}{4}=125$; Nev

38) B
$1,500\times\frac{1}{5}=300$. Thus the new price is 1,500

39) C
Days taken so far: $4\ \frac{1}{2}+3\ \frac{1}{4}+4\ \frac{1}{8}=4\ \frac{4}{8}+3$

Days of vacation left: $20\ \frac{1}{8}-11\ \frac{7}{8}=19\ \frac{(8+1)}{8}$ (by borrowning) -1

40) D
$12\ \frac{1}{4}\times 700=\frac{49}{4}\times 700=\frac{34,300}{4}=8,575$

41) A
$130\times\frac{2}{5}=\frac{260}{5}=\$52$

42) D

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$60 \times 2\ \frac{1}{5} = \frac{60}{1} \times \frac{11}{5} = \frac{660}{5} = \$132.$

43) A

$24 \div 6 = 4$ times as much cake needed

44) D

If $\frac{3}{5}$ chose Coke, then $1 - \frac{3}{5} = \frac{5}{5} - \frac{3}{5} = \frac{2}{5}$ chose Pepsi. Take

$\frac{2}{5} \times 7,500 = \frac{15,000}{5} = 3,000$

45) E

$200,000 \times \frac{1}{20} = 10,000; 200,000 - 10,000$

46) B

$\frac{280}{1} \times \frac{3}{4} = \frac{840}{4} = \$210$

47) E

$6 \div 1\ \frac{1}{2} = \frac{6}{1} \times \frac{2}{3} = \frac{12}{3} = 4$ sandwiches

48) B

$475 \div 1\ \frac{3}{4} = \frac{475}{1} \div \frac{7}{4} = \frac{475}{1} \times \frac{4}{7} = \frac{1900}{7} = 271$

49) E

$8\ \frac{1}{2} \times \frac{1}{4} = \frac{17}{2} \times \frac{1}{4} = \frac{17}{8} = 2\ \frac{1}{8}$ hours

50) A

8 × 3 = 24 servings. $\frac{16}{24}$ = fraction of servings eaten. $1 - \frac{16}{24}$ = fraction of servings uneaten. $\frac{24}{24} - \frac{16}{24} = \frac{8}{24} = \frac{1}{3}$

51) B

The product of prime numbers that multiple to get 60 = 2 × 3 × 2 × 5; The product of prime numbers that multiple to get 216 = 2 × 2 × 2 × 3 × 3 × 3. Find the product of prime numbers in common to get the Greatest Common Divisor = 2 × 2 × 3 = 12.

52) A

The smallest number that 10, 25, and 75 all go into is 150.

5	10	25	75
5	2	5	15
	2	1	3

So, the LCD = 5 x 5 x 2 x 1 x 3 = 150.

53) B

Fraction remaining = $1 - \frac{6}{7} = \frac{7}{7} - \frac{6}{7} = \frac{1}{7}$; Miles remaining = $\frac{1}{7} \times \frac{1800}{1} = \frac{1800}{7} = 257.14$ miles.

54) D

$1,200 \times \frac{1}{5} = 240\ 240 + 1,200 = 1,440$

55) A

$\frac{3}{5} \times \frac{20}{1} = \frac{60}{5} = 12$ new students. 12 + 20 = 32 students.

56) B

New Numerator: 15 × 8 + 3 = 123; Denominator stays the same.

57) C

$\frac{49}{5} = 9$ R 4; Whole Number = 9; New Numerator = 4; Denominator stays the same.

58) C

Days taken so far:

$6\ \frac{2}{3} + 7\ \frac{5}{6} + 2\ \frac{3}{8} = 6\ \frac{16}{24} + 7\ \frac{20}{24} + 2\ \frac{9}{24} = 15\ \frac{45}{24} = 1$

Days of vacation left:

$45\ \frac{1}{2} - 16\ \frac{7}{8} = 45\ \frac{4}{8} - 16\ \frac{7}{8} = 44\ \frac{(8+4)}{8}\ (by\ borrowning) - 1$

59) B

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The product of prime numbers that multiple to get 320 = 10 × 32 = 2 × 5 × 4 × 8 = 2 × 5 × 2 × 2 × 2 × 2 × 2;
The product of prime numbers that multiple to get 480 = 10 × 48 = 2 × 5 × 4 × 12 = 2 × 5 × 2 × 2 × 2 × 2 × 3.
Find the product of prime numbers in common to get the Greatest Common Divisor = 2 × 2 × 2 × 2 × 2 × 5 = 160.

60) D
$3\ \frac{1}{2} \times 2 = \frac{7}{2} \times \frac{2}{1} = \$7$

61) B
Mixed numbers contain a whole number and a proper fraction.

62) Short Answer
Mixed Number. This fraction has both a whole number and a fraction. The fraction cannot be reduced further.

63) Short Answer
Proper fraction. This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

64) Short Answer
Improper fraction. This fraction does not have a whole number but does have a numerator that is larger than the denominator.

65) Short Answer
$14\frac{5}{6}$. 6 goes into 89 fourteen times with 5 left over.</p>

66) Short Answer
$\frac{113}{8}$. 8 times 14 plus 1 equals 113.</p>

67) Short Answer

A. The largest number that goes into both 18 and 66 is 6.
B. Using the step approach, 18 goes evenly into 66 three times to equal 54, leaving a remainder of 12. 12 goes into 18 one time, leaving a remainder of 6. 6 goes into 12 two times, leaving a remainder of 0. So the last divisor, 6, is the greatest common divisor. Divide %media:formula9.mml% by %media:formula10.mml% which equals %media:formula11.mml% reduced to lowest terms.

68) Short Answer
108. Divide 96 by 8 to get 12. Multiply 9 by 12 to get 108, which is the answer.

69) Short Answer
$\frac{8}{5}$. Since there are common denominators, you only need to add 6 and 2 to get $8.\overline{15}$ cannot be reduced further.</p>

70) Short Answer
$\frac{1}{7} + \frac{5}{14} = \frac{2}{14} + \frac{5}{14} = \frac{7}{14} = \frac{1}{2}$

71) Short Answer

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List the denominators in a row, sorted left to right, then break each number down to its prime values by dividing by 2, carrying down any numbers that cannot divide evenly. Once you have used 2 for dividing you will have to use the next prime number which is 3. Multiply the prime numbers (2 × 2 × 3) times the denominators.

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

So, the LCD = 2 × 2 × 2 × 3 × 1 × 1 × 1 × 1 = 24.

72) Short Answer
Using the Improper Fractions method. Convert both to improper fractions. Then subtract. Then find an LCD and make equivalent fractions. Then subtract. Then convert back to mixed numbers. $13\frac{1}{7} = \frac{92}{7}$; $5\frac{5}{21} = \frac{110}{21}$;
Using the Borrowing Method: 13 3/21 − 5 5/21. Since 3 is smaller than 5, borrow $\frac{21}{21}$ (which is 1) from the 13, making it a 12. Thus, the problem becomes $12\left(\frac{3}{21} + \frac{21}{21}\right) - 5\frac{5}{21}$ which is $12\frac{24}{21} - 5\frac{5}{21} = 7\frac{19}{21}$.

73) Short Answer
First convert both to improper fractions. $11\frac{3}{8} \times 6\frac{6}{7} = \frac{91}{8} \times \frac{48}{7} = \frac{546}{7} = \frac{78}{1} = 78$.

74) Short Answer
$6,930 \div 3\frac{1}{2} = \frac{6,930}{1} \div \frac{7}{2} = \frac{6,930}{1} \times \frac{2}{7} = \frac{13,860}{7} =$

75) Short Answer
$2,182\frac{1}{4} - 2,095\frac{2}{5} = 2,182\frac{5}{20} - 2,095\frac{8}{20} = 2,182\frac{(5+20)}{20} - 2,095\frac{8}{20} - 2$

76) Short Answer
Profit for each pair of shoes = 58 − 26 = 32. Number of defective shoes: $\frac{1}{9} \times \frac{360}{1} = \frac{360}{9} = 40$. Pairs sold: 360 − 40 = 320. Total Profit: 320 × 32 = 10,240.

77) Short Answer
Amount sales should increase by: $\frac{1}{3} \times 144,600 = 48,200$.
Sales in the new year: 144,600 + 48,200 = 192,800.

78) Short Answer
Mixed number. This fraction has both a whole number and a fraction.

79) Short Answer
Proper fraction. This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

80) Short Answer
Improper fraction. This fraction does not have a whole number but does have a numerator that is larger than the denominator and can be reduced further by dividing the numerator by the denominator equaling 1 and $\frac{1}{9}$. All improper fractions can be reduced to a whole number or a mixed number unless otherwise stated.

81) Short Answer
$18\frac{5}{6}$. 6 divides into 113 eighteen times with a remainder of 5.

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82) Short Answer
$\frac{73}{8}$. 9 times 8 plus 1 equals 73. Show the 73 as the new denominator over the 8.</p>

83) Short Answer
Use the step approach to determine that 20 is the greatest common divisor. Divide both the numerator and the denominator by 20 to show the fraction in lowest terms.

```
20        9
       ---------
         22

        2
       ---------
180    )440
        360
       ---------
         80
       =========
        2
       ---------
80     )180
        160
       ---------
         20
       =========
        4
       ---------
20      )80
         80
       ---------
          0
       =========
```

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

84) Short Answer
Divide 114 by 19 to get 6. Multiply the numerator of 7 by 6 to get 42.

85) Short Answer
Since all the denominators are prime numbers, the product of them is the Least Common Denominator. 5 × 7 × 9 = 315.

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

86) Short Answer
$\frac{5}{9} \div \frac{5}{1} = \frac{5}{9} \times \frac{1}{5} = \frac{1}{9}$

87) Short Answer
<p>Convert the mixed fraction into an improper fraction and multiply: $\frac{121}{4} \times \frac{12}{1}$ Cancel the 12 and 4 to make a 3 and 1, respectively. The problem becomes: $\frac{121}{1} \times \frac{3}{1} = \frac{363}{1} = 363$.</p>

88) Short Answer
<p>800. $\frac{2}{3}$ preferred skinless, leaving $\frac{1}{3}$ to prefer regular. Multiply 2,400 by $\frac{1}{3}$, which is the same as dividing 2,400 by 3, to get 800 as the answer.</p>

89) Short Answer
Get an LCD for all fractions. Add the whole numbers together and numerators together.
$8\frac{3}{4} + 4\frac{1}{2} + 9\frac{1}{4} + 10\frac{1}{2} + 7 = 8\frac{3}{4} + 4\frac{2}{4} + 9\frac{1}{4} + 10\frac{2}{4} + 7\frac{0}{4} = 38$

90) Short Answer

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Stating that the price will increase by $\frac{1}{5}$ means that the next year's price will be $1\frac{1}{5}$ of this year's price. Change this to an improper fraction. Multiply $50 by $\frac{6}{5}$, and use canceling to a final answer of $6.

91) Short Answer
This fraction has both a whole number and a fraction. The fraction cannot be reduced further.

92) Short Answer
Mixed number. This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

93) Short Answer
Improper fraction. This fraction does not have a whole number but does have a numerator that is larger than the denominator and can be reduced further by dividing the numerator by the denominator equaling 1 and $\frac{1}{11}$. All improper fractions can be reduced to a whole number or a mixed fraction unless otherwise stated.

94) Short Answer
Proper fraction. This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

95) Short Answer
Improper fraction. This fraction does not have a whole number but does have a numerator that is larger than the denominator and can be reduced further by dividing the numerator by the denominator equaling 1 and $\frac{1}{14}$. All improper fractions can be reduced to a whole number or a mixed fraction unless otherwise stated.

96) Short Answer
Mixed fraction. This fraction has both a whole number and a fraction. The fraction cannot be reduced further.

97) Short Answer
$12\frac{4}{7}$. 7 goes into 88 twelve times with 4 left over.

98) Short Answer
$25\frac{2}{3}$. 25 goes into 77 three times with 2 left over.

99) Short Answer
$\frac{85}{7}$. 12 times 7 plus 1 equals 85. Show 85 over 7 as the final answer.

100) Short Answer
Using the observation method, 10 is the GCF, since both numbers end in a zero. Dividing both by 10 gives the reduced fraction $\frac{9}{32}$.

101) Short Answer
$\frac{100}{9}$. 9 times 11 plus 1 equals 100. Show 100 over 9 as the final answer and leave as an improper fraction.

102) Short Answer

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Using the step approach, 12 is the greatest common divisor.
Dividing $\frac{12}{96}$ by 12 equals $\frac{1}{8}$, which cannot be reduced further.

103) Short Answer
$\frac{72}{81}$. Divide the numerator 72 by the other numerator, 8; this equals 9. Multiply the denominator 9 by 9 to get the missing denominator of 81.

104) Short Answer
$\frac{36}{48}$. Divide the numerator 36 by the other numerator, 3, to get 12. Multiply the denominator 4 by 12 to get the missing denominator 48.

105) Short Answer
$\frac{4}{15} + \frac{1}{15} = 4 + \frac{1}{15} = \frac{5}{15} = \frac{1}{3}$

106) Short Answer
$\frac{(2\times2)}{(7\times2)} + \frac{3}{14} = \frac{4}{14} + \frac{3}{14} = \frac{(4+3)}{14} = \frac{(7\div7)}{(14\div7)} = \frac{1}{2}$

107) Short Answer
$\frac{(3\times3)}{(7\times3)} + \frac{1}{21} = \frac{9}{21} + \frac{1}{21} = \frac{10}{21}$

108) Short Answer
First, get the LCD.

4	16	20
	4	5

The LCD is 4 × 4 × 5 = 80.
Next, make equivalent fractions using the LCD and then subtract.
$\frac{(15\times5)}{(16\times5)} - \frac{(17\times4)}{(20\times4)} = \frac{75}{80} - \frac{68}{80} = \frac{(75-68)}{80} = \frac{7}{80}$

109) Short Answer
Remember to list the denominator in a sorted row before dividing each number by 2 and carrying down those which have remainders.

2	2	5	4	20
2	1	5	2	10
5	1	5	1	5
	1	1	1	1

2 × 2 × 5 = 20

110) Short Answer
24. Remember to list the denominator in a sorted row before dividing each number by 2 and carrying down those which have remainders.

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

111) Short Answer
Find a LCD of 24. Write equivalent fractions. You will get: $12\frac{3}{24} - 9\frac{16}{24}$. Since 3 is less than 16, borrow 1, written as $\frac{24}{24}$, from the 12. Add $\frac{24}{24}$ to the fraction $\frac{3}{24}$. You will get: $11\frac{27}{24} - 9\frac{16}{24}$. Subtract the whole numbers and the fractions. You will get: $2\frac{11}{24}$.

112) Short Answer
Before you can subtract you have to make $\frac{1}{4}$ larger than $\frac{3}{4}$, so move one unit $[\frac{4}{4}]$ from the whole number to the fraction in the minuend [the larger fraction on top] to get $13\frac{5}{4}$. Now subtract the $3\frac{3}{4}$ to get $10\frac{2}{4}$, which can be reduced to $10\frac{1}{2}$.

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113) Short Answer
$12\frac{3}{8} \times 7\frac{1}{6} = \frac{99}{8} \times \frac{43}{6} = \frac{4,257}{48}$. Now convert to a mixed number by taking numerator into denominator $= 88\frac{11}{16}$.

114) Short Answer
$2\frac{1}{2} \times 5\frac{1}{3} = \frac{5}{2} \times \frac{16}{3} = \frac{80}{6} = 13\frac{2}{6} = 13\frac{1}{3}$

115) Short Answer
Convert $\frac{1}{4}$ to eighths. Add the fractions together to get $\frac{3}{8}$ and subtract that from 1 to get the remaining partnership of $\frac{5}{8}$.

116) Short Answer
261. Since you are trying to find the new rate after the decrease, multiply \$290 by $\frac{9}{10}$.

117) Short Answer
$30 - 15\frac{3}{4} = (\text{using the borrowing metho}$

118) Short Answer
Since you are trying to find the amount of time left to travel, multiply $4\frac{1}{2}$ by $\frac{1}{3}$ instead of $\frac{2}{3}$ to get the answer. Convert $4\frac{1}{2}$ to the improper fraction $\frac{9}{2}$ first.
$\frac{9}{2} \times \frac{1}{3} = \frac{9}{6} = 1\frac{3}{6} = 1\frac{1}{2}$ hours.

119) Short Answer
The increase in price:
$\frac{27,000}{1} \times \frac{2}{3} = \frac{54,000}{3} = \frac{18,000}{1} = 18,000$.
The new price: The original price + the Increase = 18,000 + 27,000 = \$45,000

120) Short Answer
Convert the $18\frac{1}{4}$ into the improper fraction $\frac{73}{4}$ before multiplying by 16 to get a final answer of 292.

121) Short Answer
Convert the $2\frac{1}{2}$ into the improper fraction $\frac{5}{2}$ before dividing the total square footage 1,250 by $\frac{5}{2}$. This is the same as multiplying $\frac{2}{5}$.
$\frac{1,250}{1} \div 2\frac{1}{2} = \frac{1,250}{1} \div \frac{5}{2} = \frac{1,250}{1} \times \frac{2}{5} = \frac{2,500}{5} = 500$ cans

122) Short Answer
\$200,000. Convert the $2\frac{1}{2}$ into the improper fraction $\frac{5}{2}$ and then multiply by the parents' home price of \$80,000.

123) Short Answer
A. 2,500
B. 1,000
Multiply the number of people surveyed by $\frac{5}{7}$ and then by $\frac{2}{7}$ to get 2,500 and 1,000, respectively. This is a way to check the answer as the two answers should add back up to 3,500.

124) Short Answer
$16 \times 8 = 128; 128 + 3 = \frac{131}{8}$

125) Short Answer
Mixed fraction. The mixed fraction contains a whole number and a proper fraction.

126) Short Answer
$10\frac{1}{8} = \frac{81}{8} \div \frac{3}{8} = \frac{81}{8} \times \frac{8}{3} = \frac{81}{3} = 27$

127) Short Answer

200. Multiply the 600 respondents times $\frac{1}{3}$ (i.e. divide 600 by 3).

128) Short Answer
Write the numerator and denominator as the product of prime numbers and then use cancelling to simplify.
$\frac{162}{567} = \frac{(2\times81)}{(9\times63)} = \frac{(2\times3\times3\times3\times3)}{(3\times3\times3\times3\times7)} = \frac{2}{7}$

129) Short Answer
Proper fraction. This fraction does not have a whole number and has a numerator that is smaller than the denominator and cannot be reduced further.

130) Short Answer
$\frac{7}{15} - \frac{2}{15} = \frac{(7-2)}{15} = \frac{5}{15} = \frac{1}{3}$

131) Short Answer
$\frac{15}{32} - \frac{(3\times4)}{(8\times4)} = \frac{15}{32} - \frac{12}{32} = \frac{(15-12)}{32} = \frac{3}{32}$

132) Short Answer
$\frac{1}{3} \times \frac{1}{9} = \frac{(1\times1)}{(3\times9)} = \frac{1}{27}$

133) Short Answer
$\frac{3}{8} \times \frac{5}{12} = \frac{15}{96} \div \frac{3}{3} = \frac{5}{32}$