**Math 0306 - Departmental Exit Assessment Review (Student Version)**

**Answer the question.**
1) What does the digit 2 mean in the number 189,247?
   
   Objective: (1.1) Give Place Value of Digit

**Write the number in words.**
2) 4,200,091
   
   Objective: (1.1) Rewrite Number in Words

**Rewrite the following number using digits.**
3) Six hundred thirty-eight thousand, nine hundred ninety-seven
   
   Objective: (1.1) Rewrite Number Using Digits

**If the number is negative, write it with a raised negative sign; if the number is positive, write it in two ways.**
4) The submarine dove to a depth of 179 feet below the surface of the water.
   
   Objective: (1.2) Solve Apps: Write Negative/Positive Integers

**Graph each set of numbers.**
5) \(-2\frac{1}{2}, 0, 3, -\frac{1}{2}\)
   
   Objective: (1.2) Graph Signed Numbers on Number Line

**Write < or > between the pair of numbers to make the statement true.**
6) \(-7 \_\_\_\_\_\_\_\_\_\(-4\)
   
   A) < B) >
   
   Objective: (1.2) Write > or < to Make Statement True

**Find the absolute value.**
7) \(|-9081|\)
   
   Objective: (1.2) Find Absolute Value

**Add.**
8) \(-3 + 3\)
   
   Objective: (1.3) Add Two Integers

9) \(8 + -3 + -14\)
   
   Objective: (1.3) Add Three or More Integers

10) Jane lost 5 pounds the first week and gained 4 pounds the second week. What was her net gain or loss?

   Objective: (1.3) Solve Apps: Add Integers

11) \(-537 + 71 + -4127\)

   Objective: (1.3) Add Integers with Large Absolute Value

12) \(-7\)

   Objective: (1.4) Find Opposite of Number

13) \(-20 - -19\)

   Objective: (1.4) Subtract Two Integers

14) \(17 - 4 - 3 - 17\)

   Objective: (1.4) Add or Subtract Three or More Integers

15) \(0 - |11|\)

   Objective: (1.4) Simplify Expression with Grouping and Absolute Value

16) 590 to the nearest thousand

   Objective: (1.5) Round Positive Integer to Higher Place Values

17) Harold worked 445 hours overtime last year.

   Objective: (1.5) Solve Apps: Round Number (Front End)

18) \(-13 + -76\)

   Objective: (1.5) Use Front End Rounding to Estimate, Then Find Exact Answer
19) Pat had $953 in her checking account. If she wrote checks for $147 and $336, how much remained in her account?

Objective: (1.5) Solve Apps: Integer Sum or Difference (Front End)

Multiply.
20) 24 · 0

Objective: (1.6) Multiply Two Integers

21) -9 · -7 · -6

Objective: (1.6) Multiply Three or More Integers

Rewrite using the stated property.
22) Commutative property; 20 · 3

Objective: (1.6) Apply Multiplication Properties

Simplify.
23) |4| · -4 · |3|

Objective: (1.6) Simplify Expressions with Integers, Absolute Value

Solve the problem.
24) There is a 3-degree drop in temperature for every thousand feet that an airplane climbs into the sky. If the temperature on the ground is 49 degrees, what will be the temperature when the plane reaches an altitude of 24,000 feet?

Objective: (1.6) Solve Apps: Multi-Step Integer Problems

Divide.
25) \(-\frac{28}{-7}\)

Objective: (1.7) Divide Integers

Simplify.
26) \(-8 \div 8 \div -30 \div 5\)

Objective: (1.7) Simplify Expression with Multiplication and Division

First, use front end rounding to estimate each answer. Then find the exact answer.
27) A lawsuit settlement of $1,155,000 is to be distributed among 21 claimants. How much will each claimant get?

Objective: (1.7) Solve Apps: Four Operations (One Step)

Solve the problem.
28) A travel agent arranged a payment plan for a client. It required a down payment of $150 and 9 monthly payments of $708. What was the total cost of the plan?

Objective: (1.7) Solve Apps: Four Operations (Several Steps)

Divide and then interpret the remainder.
29) If each hotel room can hold 4 people, how many rooms are needed for 90 people?

Objective: (1.7) Solve Apps: Interpret Remainder

Simplify.
30) \(-2 \cdot |64| \div 8 \cdot |-7|\)

Objective: (1.7) Simplify Expression with Absolute Value

31) \(-43\)

Objective: (1.8) Evaluate Exponential Expression

32) 7(-9 + 9) - (5 - 5)

Objective: (1.8) Use Order of Operations: No Exponents

33) \(-4(9^2) - 9(8 - 2)\)

Objective: (1.8) Use Order of Operations: Quotients

Identify the parts of each expression. Choose from these labels: variable, constant, and coefficient.
34) \(-20 + t\)

Objective: (2.1) Identify Variable, Constant Coefficient

Rewrite the given expression without exponents.
35) \(-9\sqrt{y^2}\)

Objective: (2.1) Rewrite Variable Expression Without Exponents

Evaluate the given expression.
36) \(-5\sqrt{4t}\) when \(v = 4\) and \(t = -3\).

Objective: (2.1) Evaluate Variable Expression (Monomial)
Evaluate the expression.
37) $-\frac{z^2}{-2x + y}$; when $x$ is 5, $y$ is 4, and $z$ is 2.
   Objective: (2.1) Evaluate Variable Expression (Absolute Value/Fraction)

Identify the like terms in the given expression. Then identify the coefficients of the like terms.
38) $7x^2y + 8xy - 10xy^2 + 12x + 6xy + -7x^2y^3 + 12$
   Objective: (2.2) Identify Like Terms and Coefficients

Simplify the given expression. Write the answer with variables in alphabetical order and any constant term last.
39) $9xy^2 + 14xy + 15xy^2$
   Objective: (2.2) Combine Like Terms When Some are Like Terms

Simplify by using the associative property of multiplication.
40) $3(-9p^2)$
   Objective: (2.2) Simplify Using Associative Property of Multiplication

Use the distributive property to simplify this expression.
41) $5(z - 7)$
   Objective: (2.2) Use Distributive Property to Simplify Expression

Simplify the given expression.
42) $-2 - 2(3w - 3) + w$
   Objective: (2.2) Use Distributive Property to Simplify Complex Expression

Select the solution of the given equation from the answer choices provided.
43) $y + 9 = -23$
   A) -14   B) 14   C) -32   D) 32
   Objective: (2.3) Select Solution of Equation from Answer Choices

Solve the given equation.
44) $-15 = z + 6$
   Objective: (2.3) Solve Equation Using Single Addition

Simplify each side of the equation, if possible. Then solve the equation.
45) $-9k + 10k = 25 - 2 + 2$
   Objective: (2.3) Simplify Each Side of Equation and Solve

Solve the problem.
46) The BBQ committee always orders one pound of ribs for each person who signs up for the Homecoming BBQ, plus 15 extra pounds of ribs. The committee ordered 100 pounds of ribs this year. Solving the equation $n + 15 = 100$ will give the number of people who signed up for the BBQ. Solve the equation.
   Objective: (2.3) Solve Apps: Solving Equations Using Addition

Solve the given equation.
47) $-12k = 12$
   Objective: (2.4) Solve Equation Using Single Division Step

Simplify where possible. Then solve the equation.
48) $14 - 14 = 6f - 5f$
   Objective: (2.4) Simplify, then Solve Using Division

Solve this equation.
49) $-x = -36$
   Objective: (2.4) Solve Equation by Dividing by (-1)

Solve the problem.
50) The perimeter of a square is 4 times the length of one side, $s$. If the perimeter is 32 feet, solving the equation $4s = 32$ will give the length of one side. Solve the equation.
   Objective: (2.4) Solve Apps: Solving Equations Using Division

Solve the equation.
51) $26f + 6 = 6$
   Objective: (2.5) Solve Equation Using Addition and Division Properties

Use the distributive property to help solve the given equation.
52) $-16 = 8(y + 7)$
   Objective: (2.5) Solve Equation Using Distributive Property
Find the perimeter of the given square or rectangle.

53) 26 ft

For the given perimeter of the square, find the length of one side.

54) A square with side 7.8 in.

Given the perimeter and either the length or width of a rectangle, find the unknown measurement by using the appropriate formula.

56) The perimeter of a rectangular yard is 296 feet and the width is 45 feet.

Find the perimeter.

57)

Objective: (3.1) Find Perimeter of Triangle

Find the length of the unlabeled side of the figure, given the perimeter and the length of all other sides.

59) Perimeter is 23 cm.

Objective: (3.1) Find Length of Unlabeled Side Given Perimeter

Find the area.

60) A rectangle measuring 3 yd by 42 yd.

Objective: (3.2) Find Area of Square or Rectangle

Find the area.

61)

Objective: (3.2) Find Area of Parallelogram

Given the area of a rectangle and its specified length or width, use an appropriate formula to find the requested measurement.

62) The area of a rectangular vegetable garden is 220 yd², and the length is 20 yd. Find its width.

Objective: (3.2) Find Side of Rectangle Given Area and Other Side

Find both the perimeter (P) and the area (A) of the given figure.

63)

Objective: (3.2) Find Perimeter and Area of Figure
Solve the problem. Round to the nearest hundredth, if necessary.
64) The perimeter of a rectangular room is 34 ft. The width is 7 ft. Find the length.
   Objective: (3.2) Solve Apps: Perimeter and Area

Write an algebraic expression, using $x$ as the variable.
65) $1.6$ less than some number
   Objective: (3.3) Write Algebraic Expression Using $x$ as the Variable

Solve the problem.
66) The sum of 6 and four times a number is $-14$. Find the number.
   Objective: (3.3) Translate Sentence into an Equation and Solve

67) Junior high classes of 25 students each met in the cafeteria to take achievement tests. If exactly 8 students sat at each table and 25 tables were used, how many classes took the tests?
   Objective: (3.3) Solve Apps: Find One Unknown Quantity

68) A baseball team played a total of 137 games last season. They had 15 fewer wins than losses. How many games did the team win?
   Objective: (3.4) Solve Apps: Find Two Unknown Quantities

69) Of 104 bicycles in a bike rack, 61 are mountain bikes. What fraction of the bicycles are mountain bikes?
   Objective: (4.1) Solve Apps: Represent Situation with Fraction

Locate the fraction on the number line.
70) $\frac{5}{8}, \frac{5}{8}$
   Objective: (4.1) Graph Proper Fraction on Number Line

Write a positive or negative fraction to describe the situation.
71) Roger cut the plywood board $\frac{3}{10}$ in. too short to fit the opening.
   Objective: (4.1) Write Signed Fraction to Describe Situation

Find the absolute value.
72) $\left| \frac{5}{12} \right|$
   Objective: (4.1) Find Absolute Value of Fraction

Rewrite the fraction as an equivalent fraction with the given denominator.
73) $\frac{3}{9} = \frac{?}{54}$
   Objective: (4.1) Write Equivalent Fraction with Given Denominator

Identify the number as prime, composite, or neither.
74) 100
   Objective: (4.2) Identify Number as Prime or Composite

Find the prime factorization of the number.
75) 105
   Objective: (4.2) Find Prime Factorization of Number

Write the fraction in lowest terms by using prime factorization.
76) $\frac{15}{26}$
   Objective: (4.2) Write Fraction in Lowest Terms

Write your answer in lowest terms.
77) The Brown family traveled 500 miles on a trip this summer. 60 miles of their trip was by train. What fraction of the trip was by train?
   Objective: (4.2) Solve Apps: Write Fraction

Write the fraction in lowest terms.
78) $\frac{28p^5q^7r^8}{32p^4q^9r^9}$
   Objective: (4.2) Write Fraction with Variables in Lowest Terms
**Multiply. Write the product in lowest terms.**

79) \( \frac{21}{22} \cdot \frac{-17}{18} \)

Objective: (4.3) Multiply Signed Fractions

**Divide. Write the quotient in lowest terms.**

80) \( \frac{19}{4} ÷ \frac{-7}{10} \)

Objective: (4.3) Divide Signed Fractions

**Perform the indicated operation. Give the answer in lowest terms.**

81) \( \frac{2x^2}{5} ÷ \frac{x^3}{10} \)

Objective: (4.3) Multiply and Divide Signed Fractions and Expressions

**Solve the problem.**

82) A warehouse stores 2775 different inventory items. \( \frac{3}{25} \) of these items are perishable. How many of the inventory items are perishable?

Objective: (4.3) Solve Apps: Multiply and Divide Fractions

**Find the sum or difference. Write the answer in lowest terms.**

83) \( \frac{1}{2} - \left( -\frac{6}{7} \right) \)

Objective: (4.4) Add or Subtract Signed Fractions

84) \( \frac{7}{4x^2} - \frac{4}{4x^2} \)

Objective: (4.4) Add or Subtract Rational Expressions

**Solve the problem.**

85) Mrs. Montoya installed \( \frac{1}{8} \)-inch roofing shingles on top of a \( \frac{1}{6} \)-inch vapor barrier.

What was the combined thickness of the two materials?

Objective: (4.4) Solve Apps: Add or Subtract Fractions

**Graph the numbers on the number line.**

86) \( 3\frac{4}{5} \) and \( -\frac{4}{5} \)

Objective: (4.5) Graph Mixed Number or Improper Fraction on Number Line

**Write the mixed number as an improper fraction.**

87) \( -14\frac{1}{10} \)

Objective: (4.5) Write Mixed Number as Improper Fraction

**Write the improper fraction as a mixed number in simplest form.**

88) \( \frac{26}{8} \)

Objective: (4.5) Write Improper Fraction as Mixed Number

First, round the mixed numbers to the nearest whole number and estimate the answer. Then find the exact answer and write it in simplest form.

89) \( 2\frac{3}{5} ÷ 2\frac{1}{2} \)

Objective: (4.5) Multiply or Divide Mixed Numbers

90) \( 11\frac{2}{7} - \frac{6}{7} \)

Objective: (4.5) Add or Subtract Mixed Numbers

**Solve the problem.**

91) To obtain a certain shade of paint, Peter mixed \( 1\frac{2}{3} \) gallons of white paint with \( 4\frac{2}{3} \) gallons of brown and \( 2\frac{1}{4} \) gallons of blue paint.

How much paint did he have?

Objective: (4.5) Solve Apps: Fractions and Mixed Numbers

**Simplify.**

92) \( \left( \frac{5}{4} \right)^3 \)

Objective: (4.6) Use Exponents with Fractions
93) \(\frac{9}{10} \div \frac{3}{10} \cdot \frac{1}{7}\)

Objective: (4.6) Simplify Using Order of Operations (Fractions)

Solve the problem.
94) Linda sewed square buttons on her jacket that were \(\frac{1}{12}\) in. on each side. Find the area of one button using the formula \(A = s^2\).

Objective: (4.6) Solve Apps: Find Area and Perimeter (Fractions)

Simplify.
95) \(-\frac{2}{15} - \frac{7}{90}\)

Objective: (4.6) Simplify Complex Fraction

Solve the equation.
96) \(-\frac{8}{27}y = -\frac{32}{63}\)

Objective: (4.7) Solve Equation Containing Fractions

Solve the problem.
97) The weekly output goal of ABCD Co. is given by the expression: \(100 + \frac{x}{4}\), where \(x\) is the input in pieces. The output goal for next week is 288. What is the input in pieces?

Objective: (4.7) Solve Apps: Fractions

Find the area.
98)

Objective: (4.8) Find Area of Triangle

Find the perimeter of the shaded triangle.
99)

Objective: (4.8) Find Perimeter of Triangle

Find the volume.
100)

Objective: (4.8) Find Volume of Rectangular Solid or Pyramid

Identify the digit with the given place value.
101) 0.38945

Objective: (5.1) Identify Digit With Given Place Value

Write the decimal as a fraction or mixed number in lowest terms.
102) 0.5

Objective: (5.1) Write Decimal as a Fraction

Write the decimal in numbers.
103) Fifty six hundredths

Objective: (5.1) Given Words, Write Decimal in Numbers

Round the number to the place indicated.
104) Round to the nearest thousandth: 1.2742

Objective: (5.2) Round Decimal to Indicated Place
Objective: (5.2) Round Monetary Amount to Nearest Dollar

In order to prepare her budget, Sue gathers receipts for all major expenses she has had over the last month. Round the figure to the nearest dollar.

105) Groceries, $473.02

Objective: (5.2) Round Monetary Amount to Nearest Dollar

Find the sum.

106) 92.03 + 1.081 + 4.144 + 7.03

Objective: (5.3) Add Decimals Horizontally

Subtract the following numbers.

107) 14.450 - 10.979

Objective: (5.3) Subtract Decimals Horizontally

Solve the problem.

108) Carlos's subtotal at Scramble's Electronics is $12.71. The sales tax on these items is $1.67. What is Carlos's total bill?

Objective: (5.3) Solve Apps: Add or Subtract Decimals

Perform the indicated operation.

109) -6.539 + (-5.418)

Objective: (5.3) Add or Subtract Signed Decimals

Add or subtract as indicated.

110) -260 - (-0.8916 + 0.2)

Objective: (5.3) Add or Subtract Signed Decimals

First, use front-end rounding to round each number and estimate the answer. Then, find the exact answer.

111) Ray's gross pay is $313.08 per week. $53.50 is withheld for federal income tax, $28.51 for FICA tax, and $14.62 for other deductions. Find his net pay.

Objective: (5.3) Solve Apps: Estimate and Add/Subtract Decimals

Multiply.

112) (-3.2)(-19.7)

Objective: (5.4) Multiply Signed Decimals

Objective: (5.4) Use Front End Rounding to Estimate

Solve the problem.

114) A certain person burns 6.2 calories per minute while walking. How many calories will be burned if that person walks for 3 hours?

Objective: (5.4) Solve Apps: Multiply Decimals

Find the exact answer.

115) At SuperStop, gasoline costs $1.35 per gallon when you pay with a credit card and $0.09 per gallon less when you pay with cash. How much do you save by filling up a 14-gallon tank if you are paying cash?

Objective: (5.4) Solve Apps: Several Steps

Divide.

116) \[
\frac{1.94}{2}
\]

Objective: (5.5) Divide Signed Decimals

Perform the indicated operation and round as indicated.

117) \[
\frac{-129.163}{69}
\] hundredths

Objective: (5.5) Divide and Round Quotient as Requested

Solve the problem.

118) The water in a tank weighs 258.19 lb. One cubic foot of water weighs 62.5 lb. How many cubic feet of water are in the tank?

Objective: (5.5) Solve Apps: Divide Decimals

Perform the indicated operations and simplify.

119) \[
8.2^2 + 7.3^2
\]

Objective: (5.5) Simplify Using Order of Operations

Write the fraction or mixed number as a decimal. Round to the nearest thousandth if necessary.

120) \[
113 \frac{19}{21}
\]

Objective: (5.6) Write Fraction or Mixed Number as Decimal
**Write the decimal as a fraction or mixed number in lowest terms.**

121) 1.01

Objective: (5.6) Write Decimal as Fraction

**Solve the problem.**

122) A farmer is supposed to add 7.7 grams of supplement to the feed mix for his chickens. Instead, he adds 7.07 grams of supplement. Did he add too much or too little? What was the difference?

Objective: (5.6) Solve Apps: Fractions as Decimals

**Arrange in order from smallest to largest.**

123) 0.093, 0.039, 0.033, 0.099

Objective: (5.6) Arrange Decimals and Fractions in Order

**Find the square root. When necessary, round to nearest thousandth.**

124) \(\sqrt{12}\)

Objective: (5.8) Find Square Root

**Find the unknown length in the right triangle. If necessary, round to the nearest tenth.**

125)

![Right Triangle Diagram]

Objective: (5.8) Find Unknown Length of Right Triangle

**Solve the problem. Round to the nearest tenth, if necessary.**

126) A painter leans a ladder against one wall of a house. At what height does the ladder touch the wall?

Objective: (5.8) Solve Apps: Pythagorean Theorem

**Solve the equation and check your solution.**

127) \(-1.5 = -6.9 + x\)

Objective: (5.9) Solve Decimal Equation Using Addition Property

128) \(-8.7m = -52.2\)

Objective: (5.9) Solve Decimal Equation Using Division Property

**Solve the equation.**

129) \(7.9x - 10.8x = -40.6\)

Objective: (5.9) Solve Decimal Equation Using Addition and Division

**Solve the problem.**

130) A storage company rents their 10' \(\times\) 10' space for $66.47 per month. They have a smaller 5' \(\times\) 7' space available for 0.6 times the cost of the larger unit. What is the rental cost of the smaller space (round to the nearest cent)?

Objective: (5.9) Solve Apps: Solve Equation Containing Decimals

**Find the radius or diameter as requested.**

131) Find the diameter.

![Circle Diagram]

Objective: (5.10) Find Radius or Diameter of Circle

**Find the circumference and area of the circle. Round your results to the nearest tenth. (Use 3.14 for \(\pi\)).**

132)

![Circle Diagram]

Objective: (5.10) Find Circumference, Area of Circle from Figure

**Find the circumference and area of a circle having the given diameter or radius. Round your results to the nearest tenth.**

133) \(r = 1.85\) in.

Objective: (5.10) Find Circumference, Area of Circle

**Write the ratio as a fraction in lowest terms.**

134) 15 cents to 48 cents

Objective: (6.1) Write Ratio as Fraction
Write the ratio as a fraction in lowest terms. Be sure to make all necessary conversions.
135) 50 cents to $9
   Objective: (6.1) Convert Measurement and Write as Fraction

Solve the problem. Write ratios in lowest terms.
136) Jim’s house is built on a $2\frac{3}{4}$ acre plot of land.
   Jane’s house sits on a 9-acre piece of land.
   Find the ratio of the size of Jim’s land to the size of Jane’s land.
   Objective: (6.1) Solve Apps: Find Ratio

Write the following as a rate in lowest terms.
137) 14 cars for 56 people
   Objective: (6.2) Write Rate as Fraction in Lowest Terms

Find the unit rate.
138) 10 cents for 5 marbles
   Objective: (6.2) Find the Unit Rate

Find the best buy (based on cost per unit).
139) Brand A: 12 oz for $9.36
    Brand B: 15 oz for $11.85
   Objective: (6.2) Find the Best Buy

Solve the problem.
140) David’s net pay for a week at the video store was $72.48. If he worked 16 hours that week, what was his net pay rate?
   Objective: (6.2) Solve Apps: Rates

Write the following proportions.
141) $20 \text{ is to } 16 \text{ bottles as } $45 \text{ is to } 36 \text{ bottles}
   Objective: (6.3) Write as a Proportion

Find the unknown number in the proportion.
Round answer to the nearest hundredth when necessary.
142) $\frac{5}{x} = \frac{32}{59}$
   Objective: (6.3) Solve Proportion

Find the unknown number in the proportion.
Write your answer as a whole number or a mixed number if possible.
143) $\frac{1}{3} = \frac{x}{6 \frac{1}{8}}$
   Objective: (6.3) Solve Proportion (Fractions/Mixed Numbers)

Use a proportion to solve the problem.
144) If a computer prints 267 lines in 5 seconds, how many lines can it print per minute?
   Objective: (6.4) Solve Apps: Proportions I

Find the perimeter of the specified triangle.
Assume the triangles are similar.
145) Find the perimeter of the triangle on the left.
   Objective: (6.6) Find Perimeter Given Pair of Similar Triangles

Solve the problem.
146) Julia, who is 1.98 m tall, wishes to find the height of a tree with a shadow 33.03 m long. She walks 22.06 m from the base of the tree along the shadow of the tree until her head is in a position where the tip of her shadow exactly overlaps the end of the tree top’s shadow. How tall is the tree? Round to the nearest hundredth.
   Objective: (6.6) Solve Apps: Similar Triangles
Objective: (6.5) Use Properties of Parallel Lines to Find Angles

Use the properties of parallel lines to solve the problem.

147) Line p is parallel to line q. If \( \angle 8 \) measures 52°, find the measure of each angle.

[Diagram of parallel lines with angles labeled 4, 5, 6, 7, and t]

Objective: (7.1) Write Fraction as Percent

Write the fraction as a percent. Round to the nearest tenth of a percent if necessary.

148) \( \frac{54}{100} \)

Objective: (7.1) Write Fraction as Percent

Write percents as decimals and decimals as percents.

149) At a certain company 48% of the employees have engineering degrees.

Objective: (7.1) Convert Between Decimal and Percent Notation

Use the percent proportion to answer the question. Round your answer to the nearest tenth of a percent, if necessary.

150) $18.42 is what percent of $242.67?

Objective: (7.2) Use Percent Proportion to Find the Percent

Write and solve an equation to answer the question. Round your answer to the nearest hundredth, if necessary.

151) What is 150% of 1490 weight loss programs?

Objective: (7.3) Use Percent Equation to Find the Part

Write and solve an equation to answer the question. Round your answer to the nearest whole number, if necessary.

152) 111 highways is 45% of what number of highways?

Objective: (7.3) Use Percent Equation to Find the Whole

Write and solve an equation to find the percent increase or decrease. Round your answer to the nearest tenth of a percent, if necessary.

154) Last year, Maria earned $340 per week. This year, her salary increased to $366 per week. What is the percent of increase?

Objective: (7.4) Solve Apps: Find Percent Increase/Decrease

Find the amount of the sales tax or the tax rate and the total cost. Round money answers to the nearest cent.

155) Cost of item: $300  Tax rate: 5\( \frac{1}{2} \)%

Objective: (7.5) Find Sales Tax and Total Cost

Solve the problem.

156) Bathing suits are often on sale in July. The regular price of one suit is $43. With a 35% discount, what is the sale price of the suit?

Objective: (7.5) Solve Apps: Discount

157) Robert Hall opened a maid service company. To pay for startup costs, Robert Hall borrowed $74,000 from a bank at 9% for 1 year. Find the interest.

Objective: (7.5) Solve Apps: Simple Interest
1) 2 hundreds
2) Four million, two hundred thousand, ninety-one
3) 638,997
4) 179 feet
5)

6) A
7) 9081
8) 0
9) -9
10) -5 + 4 = -1 pounds
11) -4593
12) 7
13) -1
14) -7
15) -11
16) 1000
17) 400 hours
18) Estimate: -10 - 80 = -90
    Exact: -13 - 76 = -89
19) estimate: $1000 - $100 - $300 = $600; exact: $470
20) 0
21) -378
22) 3 · 20
23) -48
24) -23 degrees
25) 4
26) 6
27) estimate: $1,000,000 \div 20 = $50,000; exact: $1,155,000 \div 21 = $55,000
28) $6522
29) 23 rooms with space left for 2 people
30) -112
31) -64
32) 0
33) 42
34) -20 is a constant; t is a variable.
35) -9 · r · r · r · y · y
36) 240
37) -2 · 3
38) Like Terms: 8xy and 6xy
    Coefficients: 8 and 6
39) 24xy^2 + 14xy
40) -27p^2
41) 5z · 35
42) -5w + 8
43) C
44) z = -21
45) k = 25
46) n = 85 people
47) k = -1
48) f = 0
49) x = 36
50) s = 8 feet
51) r = 0
52) y = -9
53) 104 ft
54) 31.2 in.
55) 4 miles
56) 103 feet
57) 45 cm
58) 180 ft
59) 3 cm
60) 126 yd^2
61) 49 cm^2
62) 11 yd
63) P = 32 in.; A = 64 in.^2
64) 10 ft
65) x - 1.6
66) -5
67) 8 classes
68) 61 games
69) \frac{61}{104}
70) \frac{-5}{8} \quad \frac{5}{8}
71) -\frac{3}{10}
72) \frac{5}{12}
73) \frac{18}{54}
74) Composite
75) 3 · 5 · 7
76) \frac{15}{26}
77) \frac{3}{25}
78) \frac{7p}{8r}
79) \frac{119}{132}
80) \( \frac{95}{14} \)
81) \( \frac{4}{x} \)
82) 333 items
83) \( \frac{19}{14} \)
84) \( \frac{3}{4x^2} \)
85) \( \frac{1}{4} \) inch
86)
87) \( \frac{141}{10} \)
88) \( 3 \frac{1}{4} \)
89) \( 1 \frac{1}{25} \)
90) \( 10 \frac{3}{7} \)
91) \( 8 \frac{7}{12} \) gal
92) \( 1 \frac{61}{64} \)
93) \( \frac{3}{7} \)
94) \( \frac{1}{144} \) in.\(^2\)
95) \( \frac{12}{7} \)
96) \( \frac{12}{7} \)
97) 752 pieces
98) 624 in.\(^2\)
99) 21 \( \frac{1}{4} \) yd
100) 112 ft\(^3\)
101) 8
102) \( \frac{1}{2} \)
103) 0.56
104) 1.274
105) $473
106) 104.285
107) 3.471
108) $14.38
109) -11.957
110) -259.3084
111) Estimate: $210; exact: $216.45
112) 63.04
113) Estimate: 12; exact: 10.44
114) 1116 calories
115) $1.26
116) 0.97
117) -1.87
118) 4.13104 cubic feet
119) 120.53
120) 113.905
121) \( \frac{1}{100} \)
122) Too little; 0.63 grams
123) 0.033, 0.039, 0.093, 0.099
124) 3.464
125) 11.4 ft
126) 12 ft
127) 5.4
128) 6
129) 14
130) $39.88
131) 3.6 in.
132) C=14.4 yd, A=16.6 yd\(^2\)
133) C=11.6 in., A=10.7 in.\(^2\)
134) \( \frac{5}{16} \)
135) \( \frac{1}{18} \)
136) \( \frac{11}{36} \)
137) \( \frac{1 \text{ car}}{4 \text{ people}} \)
138) 2 cents/marble
139) Brand A
140) $4.53/hour
141) \( \frac{20}{16 \text{ bottles}} = \frac{45}{36 \text{ bottles}} \)
142) 9.22
143) \( 2 \frac{1}{24} \)
144) 3204 lines
145) 78 ft
146) 5.96 m
147) \( \angle 2, \angle 4, \angle 6 \) all measure 52°; \( \angle 1, \angle 3, \angle 5, \angle 7 \) all measure 128°
148) 54%
149) 0.480
150) 7.6%
151) 2235
152) 247
153) $4048
154) 7.6%
155) $16.50, $316.50
156) $27.95
157) $6660.00