Name ________________________ Date __________

Placement Test

Circle the letter of the correct answer.

1. What is the place value where the numbers differ?
   12,517  12,417
   A ones  
   B tens  
   C hundreds  
   D thousands

2. 5422
   +  708
   A 6,130
   B 6,120
   C 5,130
   D 5,120

3. 2744
   — 845
   A 2001
   B 1909
   C 1999
   D 1899

4. What addition problem could you use to check the following subtraction problem?
   582
   —  48
   534
   A  534
      +  48
      582
   B  534
      —  48
      582
   C  582
      +  534
      48
   D  582
      +  48
      534

5. Which of the following is equivalent to the product of 12 × 24?
   A 12 × (12 + 12)
   B 12 × (20 + 4)
   C (10 + 2) × 24
   D All of the above

6. 128
   ×  54
   A 1,152
   B 6,912
   C 182
   D 6,400

7. 10752 ÷ 21
   A 0.002
   B 10,731
   C 500
   D 512

8. A grocery store has 467 units of canned food. If each shelf can hold 65 units of canned food, how many units of canned food will be left after you stock only full shelves?
   A 21
   B 7
   C 12
   D 41
Name _________________________ Date __________

**Placement Test**

**Circle** the letter of the correct answer.

1. What fraction of the grid is shaded?
   - A \( \frac{9}{5} \)
   - B \( \frac{5}{9} \)
   - C \( \frac{4}{9} \)
   - D \( \frac{4}{5} \)

2. Match the decimal 0.3 to a fraction.
   - A \( \frac{1}{3} \)
   - B \( \frac{3}{5} \)
   - C \( \frac{30}{10} \)
   - D \( \frac{3}{10} \)

3. Match the fraction \( \frac{3}{4} \) to a decimal.
   - A 0.750
   - B 0.075
   - C 0.34
   - D 0.43

4. Write 36 as a product of prime factors using exponents.
   - A \( 2^2 \times 3^3 \)
   - B \( 4 \times 9 \)
   - C \( 2^4 \)
   - D \( 2^2 \times 3^2 \)

5. Rewrite the fractions \( \frac{5}{7} \) and \( \frac{3}{4} \) so they have the same denominator.
   - A \( \frac{5}{28} \) and \( \frac{3}{28} \)
   - B \( \frac{9}{11} \) and \( \frac{10}{11} \)
   - C \( \frac{20}{28} \) and \( \frac{21}{28} \)
   - D \( \frac{5}{7} \) and \( \frac{6}{7} \)

6. What symbol should be placed in the blank between the two fractions to make the relationship true?
   \( \frac{15}{4} \) \( \frac{20}{6} \)
   - A <
   - B >
   - C =
   - D None of the above
Name ___________________________ Date __________

Placement Test

Circle the letter of the correct answer.

1. \( \frac{1}{3} + \frac{3}{8} \)
   A \( \frac{1}{3} \)
   B \( \frac{4}{8} \)
   C \( \frac{4}{11} \)
   D \( \frac{17}{24} \)

2. \( 3.2 - 5.83 \)
   A \( 9.03 \)
   B \( 6.15 \)
   C \( -2.63 \)
   D \( 2.63 \)

3. \( 12^3 \) is equivalent to which of the following numbers?
   A \( 123 \)
   B \( 1728 \)
   C \( 36 \)
   D \( 1 \)

4. \( 5.59 \times 4.2 \)
   A \( 1.331 \)
   B \( 23.478 \)
   C \( 0.751 \)
   D \( 9.79 \)

5. \( \frac{2}{5} \div \frac{10}{3} \)
   A \( \frac{20}{15} \)
   B \( \frac{6}{50} \)
   C \( \frac{4}{3} \)
   D \( \frac{15}{20} \)

6. Match 80% to an equivalent fraction.
   A \( \frac{80}{10} \)
   B \( \frac{0}{8} \)
   C \( \frac{4}{5} \)
   D \( \frac{8}{100} \)

7. Match 105% to an equivalent decimal.
   A \( 1.05 \)
   B \( 10.5 \)
   C \( 0.105 \)
   D \( 105 \)

8. \( 9^3 \div 9^{-3} \)
   A \( 0 \)
   B \( 9^9 \)
   C \( 9^6 \)
   D \( 9^3 \)
Unit 4
Name ______________________ Date ___________

Placement Test

Circle the letter of the correct answer.

1. Evaluate the expression by completing the operations in the correct order. 
   \((10 + 3) \times 2\)
   A 16
   B 26
   C 15
   D 23

2. What should the parentheses be placed around to get the correct answer?
   \(6 - 12 \div 3 = 2\)
   A -
   B \(\div\)
   C 6 - 12
   D 12 ÷ 3

3. \(3 \times (4 + 5) + 2^3\)
   A 24,389
   B 25
   C 35
   D 6,859

4. If you add 15 to a number, you get 5 times 12. What is the number?
   A 75
   B 240
   C 45
   D 185

5. Solve for the variable.
   \(-7a = 182\)
   A 26
   B -26
   C 189
   D 175

6. What is the input for the expression \(x \times \frac{1}{3}\) if the output is 10?
   A 3
   B 30
   C 0
   D 3 \(\div\) 10

7. Name the property that is used to change Expression 1 into Expression 2.
   Expression 1: \(\frac{1}{8} \times 8\)
   Expression 2: 1
   A identity property of multiplication
   B commutative property of multiplication
   C inverse property of multiplication
   D associative property of multiplication

8. Solve for the variable.
   \(6x - 6 = -24\)
   A 3
   B -5
   C -3
   D 5
Placement Test

Circle the letter of the correct answer.

1. How do you move from (5, 3) to (−4, 10)?
   A Left 9 units and up 7 units
   B Right 9 units and down 7 units
   C Right 7 unit and up 9 units
   D Left 1 unit and up 7 units

2. What point is graphed on the following coordinate grid?

   A (−2, 4)
   B (4, 2)
   C (2, 4)
   D (4, −2)

3. Which of the following points could be connected to create a square?
   A (1, 8), (8, 1), (4, 5), (5, 4)
   B (1, 3), (4, 6), (1, 6), (4, 3)
   C (9, 10), (3, 5), (9, 5), (3, 10)
   D (1, 1), (2, 2), (3, 3), (4, 4)

4. Determine the length of the line segment that connects (5, −2) and (−5, −2)
   A 0
   B −10
   C 10
   D 4

5. Find the length of the hypotenuse if the lengths of the other two sides are 10 and 24.
   A 26
   B 14
   C 34
   D 12

6. Which of the following is a graph of $y = −3x + 2$?
   A
   B
   C
   D
Name __________________________ Date __________

Placement Test

Circle the letter of the correct answer.

1. Match \( \frac{1}{7} \) with its opposite.
   A \( 7 \)
   B \( -\frac{1}{7} \)
   C \( -7 \)
   D \( \frac{1}{7} \)

2. Match \( \frac{1}{7} \) with its reciprocal.
   A \( 7 \)
   B \( -\frac{1}{7} \)
   C \( -7 \)
   D \( \frac{1}{7} \)

3. Simplify the variable expression.
   \( \sqrt{100x^4y^6} \)
   A \( 100xy \)
   B \( 10x^2y^4 \)
   C \( 10xy \)
   D \( 10x^2y^3 \)

4. Find the missing side of the right triangle.
   The hypotenuse is \( c \).
   \( a = 5; c = 9; \) find \( b \).
   A \( 4 \)
   B \( \sqrt{56} \)
   C \( \sqrt{106} \)
   D \( 14 \)

5. Simplify. Assume all variables do not equal zero.
   \(-z^3(z^2x^4 + z^5)\)
   A \( z^2x^4 + z \)
   B \( -z^8x^4 - z^5 \)
   C \( z^8x^4 + z^5 \)
   D \( -z^{15}x^4 - z^6 \)

Solve for the variable.

6. \( 12x + 3x - 8x = x + 30 \)
   A \( \frac{30}{7} \)
   B \( -5 \)
   C \( 5 \)
   D \( 0 \)

7. \( 9(x + 3) = 0 \)
   A \( 3 \)
   B \( 9 \)
   C \( 0 \)
   D \( -3 \)

8. Solve for the inequality.
   \(-(y + 5) - 12 < -2\)
   A \( y > -15 \)
   B \( y < 15 \)
   C \( y = 15 \)
   D \( y > 15 \)