Quiz 4: Cumulative Review

1. Identify the place value of the digit 4 in each whole number.
   a) 1,543,978  b) 3,004,000  c) 401,579,020

2. Round each number to the indicated place value.
   a) 153 to the nearest ten
   b) 2,599,587 to the nearest hundred-thousand
   c) 67,590 to the nearest one-thousand
   d) 45,873 to the nearest hundred

3. Evaluate each expression without a calculator.
   a) $-|7| + (-6)$  b) $|6 - 12|$  c) $-(-14) + |-21|$
4. Find the value of each expression.
   a) \(-4 + 9\)  
   b) \(-7 + 13\)  
   c) \(-8 + 5\)
   d) \(-2 + (−7)\)  
   e) \(-7 − (−10)\)  
   f) \(-3 − 3\)

5. Find the value of each expression.
   a) \(-5(−4)\)  
   b) \(\frac{−63}{9}\)  
   c) \(-65 ÷ (−5)\)
   d) \(3 × (−11)\)  
   e) \(\frac{60}{−4}\)  
   f) \(-6 · 7\)

6. Simplify each expression by combining like terms.
   a) \(-8x − 5y + 3x − y + 6\)  
   b) \(-5(−2r − 3q) − (−q − r)\)

7. Fill in the blank with < or > to make the statement true.
   a) \(-15 \text{  } < \text{  } −16\)  
   b) \(58 \text{  } > \text{  } 59\)  
   c) \(-51 \text{  } > \text{  } −50\)
8. Use the rule for the order of operations to simplify the expressions.

a) \(-3^2 - | -4 - 6 |\) 
   
b) \((-6)^2 + (-2 + 4)^2\)

c) \(3\sqrt{64} \div 2\sqrt{9}\) 
   
d) \(6 \left| 9 - 5 \right| - 8\)

9. Evaluate each expression where \(x = -2\) and \(y = 3\).

a) \(3x - 12y + 5\) 
   
b) \(4x^3y^2\)

c) \(-2x^2y^2\) 
   
d) \(\frac{3x}{4-y}\)

10. Use the rule for the order of operations to simplify the expressions.

a) \(-7\left[(-3)^2 + 1\right] - (-2)^4\) 
   
b) \(-3 - \left[(3+2)^2 - 23\right]^2\)
11. Simplify each expression.
   a) \(-8 + 2(p - 11) + 5p\)
   b) \(5(-2w + 1) + 4(w - 2) + 16\)

12. List the terms and coefficients of the given expression. Also identify the constant.
   \(-3x^2 + 2xy^3 + 7y - 5\)

13. Determine whether each equation is an example of the *commutative*, *associative*, or *distributive* property.
   a) \(3 + (2 + x) = (3 + 2) + x\)
   b) \(x(3 + 2) = 3x + 2x\)
   c) \((t + 1) + 4 = (1 + t) + 4\)
   d) \(8(5 \times 4) = 8(4 \times 5)\)
   e) \(x + 2 = 2 + x\)
   f) \((12 \times 6) \times 7 = 12 \times (6 \times 7)\)