1. Write down the rules of exponents.
   a) \( x^m \cdot x^n = \) ________  
   b) \( \frac{x^n}{x^m} = \) ________  
   c) \( (x^n)^m = \) ________  

2. Simplify by writing with nonnegative exponents.
   a) \( x^{-4} = \) ________  
   b) \( 4^{-3} = \) ________  
   c) \( \frac{2}{x^{-3}} = \) ________  
   d) \( 4^0 = \) ________  
   e) \( (4t)^0 = \) ________  
   f) \( -(2)^0 = \) ________  

3. Find
   a) \( x^2 \cdot (2x^4) = \) ________  
   b) \( (2x^2y)(3y) = \) ________  
   c) \( \frac{b}{b^6} = \) ________  
   d) \( \frac{3x^4y^2}{12xy^5} = \) ________  
   e) \( (2x^3y^2)^3 = \) ________  

4) \( (x - 2y)(x + 3y) = \) ________  

5. Find the area of a rectangle with width of \( x + 2 \) and length \( 2x + 3 \). \( \) ________________
6. Find the solution of each of the following equations. SHOW WORK !!!

a) \(4 + x = 13\)  
b) \(-3 = v + 5\)

c) \(z + \frac{3}{5} = \frac{4}{5}\)  
d) \(8x + 1 = 7\)

e) \(\frac{3}{5}y + \frac{1}{4} = \frac{3}{4}\)  
f) \(\frac{z}{3} - \frac{1}{2} = \frac{1}{4}\)

g) \(-2w = 4 - 5w\)  
h) \(5(3z - 2) = 8\)

i) \(4(3x + 1) - 5x = 25\)  
j)
7. Construct a rectangular coordinate system. Label the axes, the origin, and the quadrants.

8. Which quadrant are each of the following points in
   a) \((-2, 7)\) → _______
   b) \((-3, -2)\) → _______
   c) \((2, y)\) if \(y < 0\) → ______

9. Plot: A \((0, -2)\) and B \((4, -3)\).

10. Identify as a linear equation or non linear equation.
    a) \(x = y\)
    b) \(2x = y^2\)
    c) \(x = xy + 2\)

11. Is \((3, -2)\) a solution of \(2x - 3y = 0\)? Show Work!

12. If \((2, y)\) is a solution of \(x + 3y = 1\), then find \(y\). __________

13. Sketch the graph of
    a) \(y = 2x - 5\) (use at least three points)
    b) \(x + 2y = 4\)
    c) \(y = 4x\).
14. Word Problems: (3 – 5)