

1. Simplify each expression. LEAVE YOUR ANSWERS IN **POSITIVE EXPONENTIAL FORM**.

a.  $\frac{15p^4}{3p^2} \cdot (p^0) =$

b.  $\frac{a^7y^3}{a^2y^{-8}} =$

c.  $(-4)^3 \cdot (-4)^{10} =$

d.  $m^3 \cdot n^3 =$

2. Write each equation in slope-intercept form, then identify the slope and y-intercept.

a)  $-6x + 3y = 18$                       slope =  
y-intercept =

b)  $-42x = -6y - 12$                       slope =  
y-intercept =

**Solve for x. Show all of your work.**

3.  $4x + 30 = -7 + 4x + 10$

- a. answer:
- b. equation type: consistent, inconsistent or identity?
- c. number of solutions:

4.  $5(x - 4) + 3x = 12x + 18 - 4x + 2$

- a. answer:
- b. equation type: consistent, inconsistent or identity?
- c. number of solutions:

5.  $\frac{5}{3}(3x - 2) = 3x + \frac{2}{3}$

6.  $3.2x + 7.9x = 9.9x + 4.8$