

1. Solve for p:  $x = 2p + y$

$$\frac{x - y}{2} = \frac{2p}{2}$$

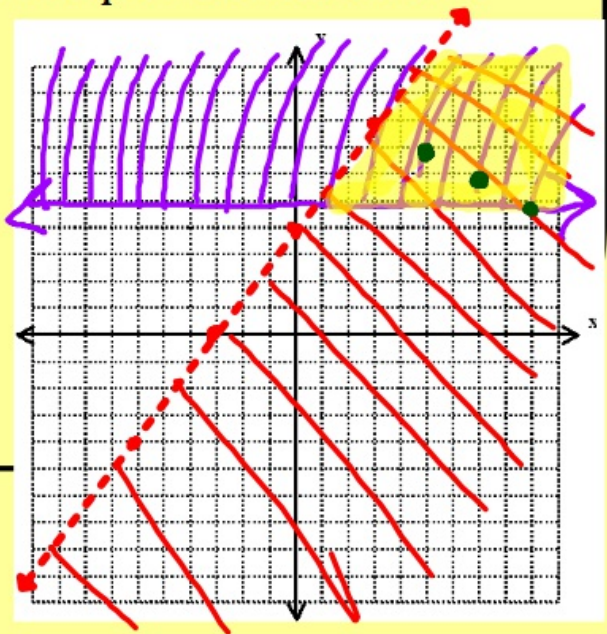
$$p = \frac{x - y}{2}$$

2. Graph the following system of inequalities and name one point in the solution.

$$y \geq 5$$

$$y < \frac{4}{3}x + 4$$

$$\begin{aligned} (5, 7) \\ (7, 6) \\ (8, 5) \end{aligned}$$



3. Simplify:

$$(8n - 3n^4 + 10n^2) - (3n^2 + 11n^4 - 7)$$

$$\cancel{8n} - \cancel{3n^4} + \cancel{10n^2} - \cancel{3n^2} - \cancel{11n^4} + 7$$

$$-14n^4 + 7n^2 + 8n + 7$$

## Notes Quiz

Identify the type of polynomial and the degree:

1.  $3x^2$

2.  $-7$

3.  $9x - 3y + z$

4.  $x^2 + y^3z$

5.  $-10w^5 + 3w^4 - 9w^3 + 6w + 9$

6.  $-12g^6 + 15g^3 - 9g$

7.  $k$

Combine like terms:

8.  $7x^2 - 5x + 10x + 2x^2$

9.  $(-2c + 4) - (5c + 6)$

10.  $b^7 + 3b^4 - 2b + 5b^7 - 7b + 12b^4 + 9b$

## Multiplying Monomials

Rules:

-Must have the same base to multiply!!!

-ADD the exponents when multiplying!!

Examples:

~~$3^2(3^5) = 3^7 = 2187$~~

~~3·3~~

$$x(x^2)(x^3) = x^6$$

$$(4abc)(-3a^2b^3c)$$

$$-12a^3b^4c^2$$

$$3x^2(4x^3) = 12x^5$$

$$(10e^2)(3g^4)(5eh)$$

$$150e^3g^4h$$

$$5xy^2(-3x^3y^2)$$

$$-15x^4y^4$$

42

Simplify:

~~$x^5(x^4)$~~   
 $x^5(x^4)$

$$x^5(x^4)(x^3)$$

$x^{12}$

$$(5a^2b^3c)(-4a^5bc^2)$$

$$-20a^7b^4c^3$$

$$-5x^6(7x^4)$$

$$-35x^{10}$$

$$(7e^3)(5g^2)(8eh^4)$$

$$280e^4g^2h^4$$

$$7xy^4(-5x^4y)$$

$$-35x^5y^5$$

## Multiplying a monomial and a poly

$$5x^2(-7x^4 + 5x^3 - 9)$$
$$-35x^6 + 25x^5 - 45x^2$$

$$3x^3y^2(8xy + 9x - 4y)$$
$$24x^4y^3 + 27x^4y^2 - 12x^3y^3$$

$$-2abc(-6a^2 + 4ab - 6b + 4)$$
$$12a^3bc - 8a^2b^2c + 12ab^2c$$
$$- 8abc$$

## You Try:

1.  $5x(3x + 4)$

$$15x^2 + 20x$$

2.  $4x^2y^3(-6xy + 5y - 6)$

$$-24x^3y^4 + 20x^2y^4 - 24x^2y^3$$

3.  $-8ab(-3a^3b^2 - 7ab + b - 5)$

$$24a^4b^3 + 56a^2b^2 - 8ab^2 + 40ab$$

# Multiplying Polys WS