

## **9/6 - Warm-Up:**

Explain, in detail, why you should show all of your work in Algebra 2.

## 1.5 - Literal Equations and Formulas

What are some examples of formulas you currently know?

$$y = mx + b$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$a^2 + b^2 = c^2$$

$$d = r \cdot t$$

$$d = \frac{m}{v}$$

$$A = \frac{(b_1 + b_2)h}{2}$$

Solve the given formula for the given variable.

$$y = mx + b \quad \text{solve for } x$$
$$\frac{y - b}{m} = \frac{mx}{m}$$
$$\boxed{\frac{y - b}{m} = x}$$

$$y = y_1 + m(x - x_1)$$

$$y = y_1 + mx - mx_1$$

$$-y_1 \quad -y_1$$

$$\frac{y - y_1}{m} = \frac{mx - mx_1}{m}$$

$$\frac{y - y_1}{m} = x - x_1$$

+x<sub>1</sub>

+x<sub>1</sub>

$$\frac{y - y_1}{m} + x_1 = x$$

Solve for x

$$y = y_1 + m(x - x_1)$$

$$-y_1 \quad -y_1$$

$$\frac{y - y_1}{m} = \frac{m(x - x_1)}{m}$$

$$\frac{y - y_1}{m} = x - x_1$$

+x<sub>1</sub>

$$\frac{y - y_1}{m} + x_1 = x$$

$$y = a(x-h)^2 + k$$
$$\begin{array}{c} -k \\ y - k = a(x-h)^2 \\ \hline (x-h)^2 \end{array}$$

Solve for a

$$\boxed{\frac{y-k}{(x-h)^2} = a}$$

$$F = 3b + ab$$

$$F = b(3+a)$$

$3+a$

$3+a$

$$\frac{F}{3+a} = b$$

Solve for b

$$5 = \frac{3}{m} - n$$

$+n$                        $+n$

$$m(5+n) = \frac{3}{m} \cdot m$$

$$\frac{m(5+n)}{5+n} = \frac{3}{5+n}$$

$$m = \frac{3}{5+n}$$

Solve for m

**Homework:**

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**#11-23 all**

**due Wednesday 9/7**