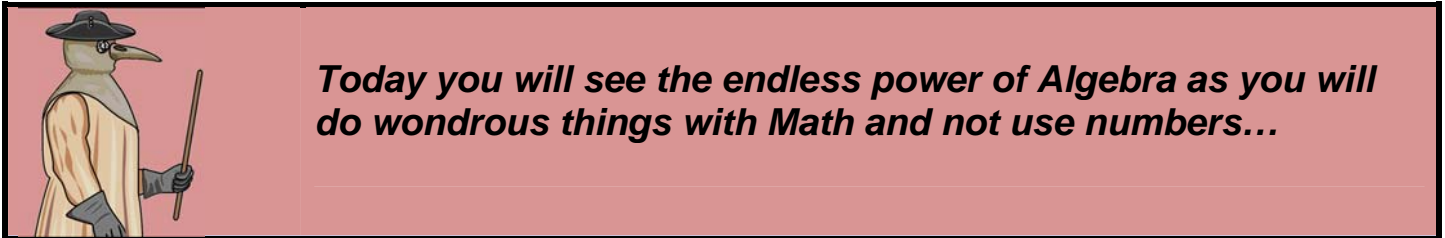




**Objective:** Rearranging Formulas Using Algebra – Literal Equations

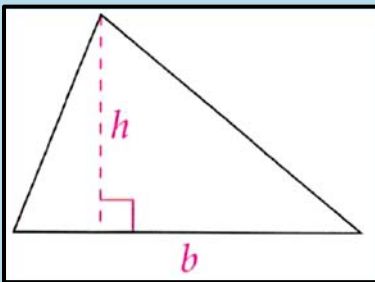
**Homework SE-6** – NYA p.141 #1 – 3 Show work but don't copy questions

**Do Now:** Solve for x using inverse operations. 1.  $ax + b = c$  2.  $\frac{x}{y} = z$



A **literal equation** is an equation with two or more variables. Formulas are special literal equations. Transform them by solving for one variable in terms of another.

Ex: Area of Triangle



$$A = \frac{1}{2}bh$$

Solved for h, height.

$$A = \frac{1}{2}bh$$

$$(2) A = \frac{1}{2}bh \quad (2)$$

$$\frac{2A}{b} = \frac{bh}{b}$$

$$\frac{2A}{b} = h$$

Solved for b, base.

$$A = \frac{1}{2}bh$$

$$(2) A = \frac{1}{2}bh \quad (2)$$

$$\frac{2A}{h} = \frac{bh}{h}$$

$$\frac{2A}{h} = b$$

**Evaluate:** Which formula do you use? Substitute.

$$A = 48 \text{ cm}^2 \text{ and } b = 4 \text{ cm}$$

Practice

|                       |                      |                                  |
|-----------------------|----------------------|----------------------------------|
| $d = rt$              | $V = \pi r^2 h$      | $C = \frac{5}{9} (F - 32)$       |
| Solve for t.          | Solve for h.         | Solve for F. <i>Hard! Do it!</i> |
| What is this formula? | Can you solve for r? | What is this formula?            |

Extra Practice

|                 |                   |                                  |
|-----------------|-------------------|----------------------------------|
| $g - a = h + a$ | $\frac{x}{y} = 1$ | $x = y^2 + 1$                    |
| Solve for g.    | Solve for x.      | Solve for y. <i>Hard! Do it!</i> |
|                 |                   |                                  |