UNIT 1 LESSON 5

SOLVING LITERAL EQUATIONS

Literal Equations are equations that involve 2 or more variables.

Isolate the specified variable by performing the inverse operation(s).

*****Remember the Properties of Equality will help you solve!!!**

EX #1) Solve for y: 6y – 12x = 18

6y = 18 + 12x

$\frac{6y}{6} = \frac{18}{6} + \frac{12x}{6}$

y = 3 + 2x

EX #2) Solve for y: 15x – 5y = 25

-5y = 25 – 15x

$\frac{-5y}{-5} = \frac{25}{-5} - \frac{15x}{-5}$

y = -5 + 3x

EX #3) The formula for finding the area of a triangle is $A = \frac{1}{2}bh$, where b is the length of the base and h is the height of the triangle. Suppose you know the area and height of the triangle, but need to find the length of the base. In this case, solving the formula for b would be helpful. Solve the area formula for b, then write a sentence describing how to find the base of a triangle given the area and height.

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

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

2A = bh

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

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

YOU TRY!!!

EX #4) Solve for y: 4y + 3x = 16

EX #5) The distance, d, that a train can travel is found by multiplying the speed, r, by the amount of time that it is travelling, t, or d = rt. Solve this formula for t to find the amount of time the train will travel given a specific distance at a given speed.