3.8: Rewrite Equations and Formulas

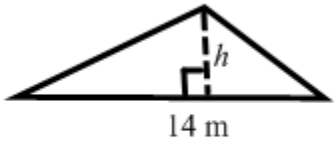
Goals: *Isolate a variable in a literal equation
*Rewrite an equation so it is in function form

Literal equation:

Ex: Solve $ax + b = c$ for x This means to:

Solve the following equations for the given variable.

Ex: Solve $A = \frac{1}{2}bh$ for h Find h if the shown triangle has an area of 64.4 m²



Ex: $p + qx = r$ for x

Ex: $A = lw$ for l, then find l if A = 351 cm² and w = 13 cm

Ex: You are visiting Toronto over the weekend and look up a weather forecast. Find the low temperatures for Saturday and Sunday in degrees Fahrenheit. First rewrite the conversion formula so F is isolated:

$$C = \frac{5}{9}(F - 32)$$

	Friday	**Saturday**	**Sunday**
Forecast	Sunny	Sunny	Partly Cloudy
High	21°C	22°C	16°C
Low	13°C	14°C	10°C

****RECALL THAT ALL FUNCTIONS START WITH: ****

So when you are rewriting an equation so it is in function form that means to isolate:

Ex: $-2x + 3y = 6$

Ex: $3x + 2y = 8$

Ex: $4x - 2y = -6$

Ex: $-3x - y = 7$