## 3.2: Solve 2-step Equations

Goals: *Solve 2-step equations
*Write and solve 2 -step equations
You wrap a gift when you KNOW what the gift is....How do you wrap a gift?

...this is like knowing/having all of the numbers in a math problem. If you know all the numbers (there are no variables) how do you solve a math problem?

You unwrap a gift when you DON'T KNOW what the gift is....How do you unwrap a gift?

...this is similar do solving equations in math (when you have an unknown/variable). If you have a variable (and there is more than one step) how would you solve a math problem?
Ex: $\frac{x}{2}+5=11$
Ex: $5 x+9=24$

Ex: $4 y-4=16$
Ex: $-1=\frac{z}{3}-7$

Ex: $7 x-4 x=21$
Ex: $4 w+2 w=-24$

Ex: $8 t-3 t=-35$
Ex: $-16=5 d-9 d$

## Write a function. Then solve using the given information.

Ex: The output of a function is 3 less than 5 times the input. Find the input when the output is 17 .

Ex: The output of a function is 5 more than -2 times the input. Find the input when the output is 11 .

Ex: The output of a function is 4 less than 4 times the input. Find the input when the output is 3 .

Ex: As a scuba diver descends into deeper waters, the pressure of the water on the divers body increases. The pressure at the surface of the water is 2117 lbs per square foot $\left(\mathrm{lb} / \mathrm{ft}^{2}\right)$. The pressure increases at a rate of 64 lbs per square foot for each foot the diver descends. Write an equation to represent the situation then find the depth at which the diver experiences a pressure of $8517 \mathrm{lbs} / \mathrm{ft}^{2}$.


Ex: Kim has a job where she makes $\$ 8 / \mathrm{hr}$ plus tips. Yesterday Kim made $\$ 53, \$ 13$ of which were from tips. Write an equation to represent the situation, then find out how many hours Kim worked yesterday.

