

# 1.4 Equations

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- Equations: a statement formed by placing an equal sign (=) between two Expressions.

\* It has an equal Sign!

An Equation has a Left & Right Side  
equation Because it has an(=)

$$\underbrace{4x + 1}_{\text{Left Side}} = \underbrace{9}_{\text{Right Side}}$$

-Solution: the number that  
replaces the Variable to Make  
the Equation True.

$$4x + 1 = 9$$

2 is the Solution

Check if 2 + 3 are solutions  
for  $4x + 1 = 13$

① Try 2:  $4x + 1 = 13 \rightarrow \text{exp.}$

$$\begin{array}{r} 4(2) + 1 \stackrel{?}{=} 13 \rightarrow \text{sub.} \\ \hline 8 + 1 \stackrel{?}{=} 13 \end{array}$$

False...  $9 \neq 13$

2 is Not a Solution

try 3:  $4x + 1 = 13 \rightarrow \text{exp.}$

$$\begin{array}{r} 4(3) + 1 \stackrel{?}{=} 13 \\ \hline 12 + 1 \stackrel{?}{=} 13 \end{array}$$

$$\begin{array}{r} 12 + 1 \stackrel{?}{=} 13 \\ \hline 13 = 13 \checkmark \end{array}$$

True...

3 is a Solution

# Solve an Equation Using Mental Math

\* Think of + write the Equation as a Question.

ex 1)

$$2x = 10 \Rightarrow$$

What number times 2 equals 10? 5

$$4 = x - 3 \Rightarrow \text{What Number minus three equals 4? } \underline{7}$$

## Real Life Math

Chips  $\rightarrow 3.00$

Beans  $\rightarrow 1.00$

Cheese  $\rightarrow 4.00$

Tomatos  $\rightarrow 1.00$

Olives  $\rightarrow 1.50$

Cost  $= 10 + x$

$$3 + 1 + 4 + 1 + 1.5 = 10 + x$$

$$10.5 = 10 + x$$

What number plus 10 .50  
equals 10.5?

I only had  
\$10.00

How Much More  
do I need.

# O.T.L.

① Pg 27-28 : 9-15 (all);  
27-49 (0);  
50