

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 (=)

$$4x + 1 = 9$$

Left Side

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 $4x + 1 = 13$

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

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

True... $13 = 13 \checkmark$

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

$4 = x - 3 \Rightarrow$ What Number
minus 3 equals 4? 7

Real Life Math

Chips $\rightarrow 3.00$

Beans $\rightarrow 1.00$

Cheese $\rightarrow 4.00$

Tomatos $\rightarrow 1.00$

Olives $\rightarrow 1.50$

I only had
\$10.00

How Much More
do I need.

$$\text{Cost} = 10 + x$$

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

$$10.50 = 10 + x$$

What Number plus 10 equals 10.50?

.50

O.T.L.

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