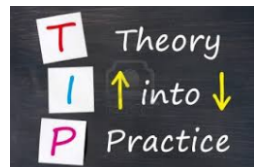


Warm Up

~~Translate and Solve~~

a) 5 less than a number is 20

25

$$x - 5 = 20$$



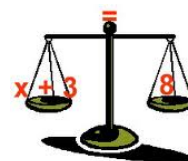
b) The sum of a number and 44 is 13

x

$$x + 44 = 13$$

-31

## Unit 2: Solving One and Two Step Equations



**Solving equations** is something you have done before. You must keep both sides **EQUAL** without throwing one side off balance.

**INVERSE OPERATIONS:**  
operations that undo each other.

This is how you solve equations- by doing the inverse or opposite operations!

Inverse operations				
operation	+	-	×	÷
inverse	-	+	÷	×

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## Solving 1-Step Equations w/ Addition &amp; Subtraction

Inverse operations				
operation	+	-	×	÷
inverse	-	+	÷	×

Solve and check each of the following.

$$1) \begin{array}{l|l} 3 & \square - 11 \\ +11 & +11 \\ \hline 14 & = m \end{array}$$

check:

$$3 = (14) - 11$$

$$3 = 3 \checkmark$$

$$2) \begin{array}{l|l} 48 + \square & -5 \\ -48 & -48 \\ \hline k & = -53 \end{array}$$

$$48 + (-53)$$

-5


**Summarize it!**

In your own words, give a general step-by-step procedure for how to solve one-step equations.



1. Draw line down  
equal sign  
(Keep balance)
2. Do opposite operation  
to remove the # w/  
the variable  
(same to both sides)
3. Solve & check in  
original equation
4. \_\_\_\_\_

$$\begin{array}{r} \boxed{x} + 5 = 17 \\ -5 \quad -5 \\ \hline X = 12 \end{array}$$



Inverse operations				
operation	+	-	×	÷
inverse	-	+	÷	×



$$\begin{array}{r} -15 = \boxed{x} - 3 \\ +3 \quad +3 \\ \hline -12 = X \end{array}$$

IT'S ALL ABOUT  
**BALANCE**  




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## Mixed Practice!

Solve and check each of the equations shown below.

$$1. \quad x - 3 = 7$$

$$\begin{array}{r} +3 \quad +3 \\ \hline x = 10 \end{array}$$

$$3. \quad 7 + k = -4$$

$$\begin{array}{r} -7 \quad -7 \\ \hline k = -11 \end{array}$$

$$2. \quad 8 = 9 + c$$

$$\begin{array}{r} -9 \quad -9 \\ \hline -1 = c \end{array}$$

$$4. \quad -10 + m = 5$$

$$\begin{array}{r} +10 \quad +10 \\ \hline m = 15 \end{array}$$



Complete the exit ticket on the LAST  
PAGE OF THIS PACKET





Directions: Solve and check each of the equations found below. Show all work for full credit.

1.  $4 + x = 12$

2.  $18 = x - 7$

Name: \_\_\_\_\_

Score: \_\_\_\_/6

**EXIT TICKET**  
(one-step w/ addition & subtraction)

\*tear this page off and  
turn it in before you  
leave class today\*