Math Skills   Name: __Key__

Equation Day 1 NOTES   Period: _____ Date: _____

SOLVING EQUATIONS BY ADDITION

*** To (solve) do the **same** operation to **both sides** of the equation.

Use the **opposite** operation. The opposite of Subtraction is **Addition.**

$$x - 4 = 19$$
$$x - 4 (+ 4) = 19 (+ 4)$$
$$x + 0 = 23$$
$$x = 23$$

la opuesta
de restar es
sumar.

negativo   positivo

*** Get the variable (letter) by itself on one side of the equation.

Practice:

1) $x - 5 = 12$
   $+5 \quad | \quad + 5$

   $\boxed{X = 17}$

2) $50 = x - 8$
   $+8 \quad | \quad +8$

   $\boxed{58 = X}$

3) $x - 5 = 7$
   $+5 \quad | \quad + 5$

   $\boxed{X = 12}$

4) $x - 11 = 19$
   $+11 \quad | \quad +11$

   $\boxed{X = 30}$

5) $x - 3 = 21$
   $+3 \quad | \quad +3$

   $\boxed{X = 24}$

6) $4.1 = x - 2.7$
   $+2.7 \quad | \quad +2.7$

   $\boxed{6.8 = X}$

7) $x - 2.5 = 1.9$
   $+2.5 \quad | \quad +2.5$

   $\boxed{X = 4.4}$

8) $0.9 = x - 2.1$
   $+2.1 \quad | \quad +2.1$

   $\boxed{3.0 = X}$

SOLVING EQUATIONS BY SUBTRACTION

*** To solve do the **same** operation to **both sides** of the equation.

Use the **opposite** operation. The opposite of Addition is **Subtraction**.

$$x + 4 = 18$$
$$x + 4 - 4 = 18 - 4$$
$$x + 0 = 14$$
$$x = 14$$

*** Get the variable (letter) by itself on one side of the equation.

Practice:

9) $x + 5 = 28$
   $-5 \quad -5$
   $\boxed{X = 23}$

10) $19 = x + 7$
   $-7 \quad -7$
   $\boxed{12 = X}$

11) $x + 9 = 14$
   $-9 \quad -9$
   $\boxed{X = 5}$

12) $7 = x + 3$
   $-3 \quad -3$
   $\boxed{4 = X}$

13) $x + 7 = 19$
   $-7 \quad -7$
   $\boxed{X = 12}$

14) $3.4 = x + 2.4$
   $-2.4 \quad -2.4$
   $\boxed{1.0 = X}$

15) $2.0 = x + 1.1$
   $-1.1 \quad -1.1$
   $\boxed{0.9 = X}$

16) $x + 4.5 = 6.2$
   $-4.5 \quad -4.5$
   $\boxed{X = 1.7}$