

Name _____ Period _____

Notes: Solving Equations

The goal of solving _____ equations is to find

_____ that makes the equation _____.

To solve a one-step equation you need to _____

the _____ (_____).

Non-isolated variable examples:

$$x - 5 = 7$$

$$11 = y - 4$$

$$a + \frac{1}{2} = -3$$

Isolated variable examples:

$$x = 15$$

$$-8 = z$$

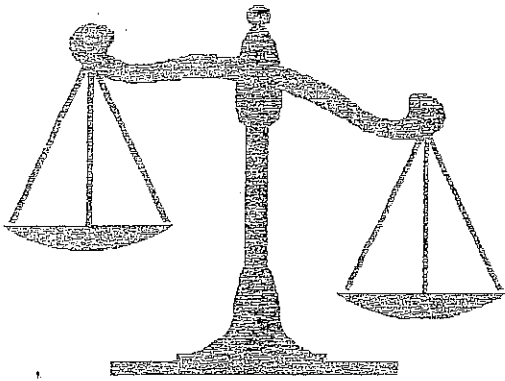
$$e = 2.3$$

1.) To _____ a _____ you use

_____ to _____ the

_____ in the equation.

2.) Then, _____



Equations are always balanced.
What you do to one side you do to
the other side to keep the equation
equal.

Examples of inverse operations: addition & subtraction
multiplication & division

Solve: $x + 7 = 10$ the operation in the equation is _____

$x + 7 - 7 = 10 - 7$ the _____ of adding 7 is
subtracting 7

$$x + 0 = 3$$

DO THIS TO BOTH SIDES

$$x = 3$$

The variable is _____

EQUATION SOLVED!

Solve: $-11 = y - 2$ the operation in the equation is _____

_____ the _____ of subtracting 2 is
adding 2, do this to BOTH SIDES.

_____ The variable is _____

EQUATION SOLVED!

Solve: $6x = 72$ the operation in the equation is _____

$$\frac{6x}{6} = \frac{72}{6} \text{ the } \underline{\hspace{2cm}} \text{ of multiplying is } \underline{\hspace{2cm}} \text{ by } 6$$

NOTICE THAT WE DIVIDE BOTH SIDES

$$x = 12 \text{ The variable is } \underline{\hspace{2cm}}.$$

Solve: $\frac{x}{4} = 7$ the operation in the equation is _____

$$4 \cdot \frac{x}{4} = 7 \cdot x \text{ the opposite of dividing is } \underline{\hspace{2cm}}$$

NOTICE THST WE MULTIPLY BOTH SIDES

$$x = 28 \text{ the variable is } \underline{\hspace{2cm}}.$$

$x = 28$ the variable is _____

NOTICE THAT WE MULTIPLY BOTH SIDES

$4 \cdot \frac{4}{x} = 7 \cdot x$ the opposite of dividing is _____

Solve: $\frac{4}{x} = 7$ the operation in the equation is _____

$x = 12$ The variable is _____

NOTICE THAT WE DIVIDE BOTH SIDES

$6x = 72$ the _____ of multiplying is _____ by 6

Solve: $6x = 72$ the operation in the equation is _____