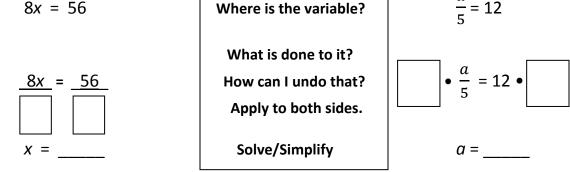# Solving One-Step Equations – Multiplication & Division (SOL 6.18 & 7.14)

- **Remember**: The **GOAL** of solving equations: _____

  o To do this you need to _____ the variable, using _____

State the <u>INVERSE OPERATIONS</u>

- o Add 23   _____

- o Subtract 18   _____

- o **Multiply by –15** _____

- o **Divide by 8**   _____

Example 1:   Solve $8x = 56$.

Solution:

$8x = 56$

$$\frac{8x}{\Box} = \frac{56}{\Box}$$

$x =$ _____

Where is the variable?
What is done to it?
How can I undo that?
Apply to both sides.
Solve/Simplify

Example 2:   Solve $\dfrac{a}{5} = 12$

Solution:

$$\frac{a}{5} = 12$$

$$\Box \cdot \frac{a}{5} = 12 \cdot \Box$$

$a =$ _____

Check:

$8x = 56$

$8(\_\_\_) \overset{?}{=} 56$

____ $= 56$ ✓

Write original equation.
Substitute for variable.
Is it true?

Check:

$$\frac{a}{5} = 12$$

$$\frac{(\ \ \ )}{5} = 12$$

____ $= 12$

Let's Practice!!

Solve each equation. Check your solution.

Solve	Check here:	Solve	Check here:
$3a = 18$		$\dfrac{b}{4} = 12$	
$4 = \dfrac{f}{3}$		$48 = 6y$	
$121 = 11a$		$\dfrac{g}{7} = 7$	
$9x = 45$		$32 = 8a$	
$3z = 36$		$\dfrac{x}{5} = 2$	
$21 = \dfrac{x}{3}$		$8b = 56$	