Math 6 NOTES (5.4) Name _____ Block ____

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

- **Remember**: The **GOAL** of solving equations: _____
  - To do this you need to _____ the variable, using _____

State the <u>INVERSE OPERATIONS</u>

- Add 23 _____
- Subtract 18 _____
- **Multiply by –15** _____
- **Divide by 8** _____

Example 1: Solve $8x = 56$.

Solution:

$8x = 56$

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

$x =$ _____

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

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

Solution:

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

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

$a =$ _____

Check:

$8x = 56$

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

$\_\_\_\_ = 56$ ✓

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

Check:

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

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

$\_\_\_\_ = 12$

Let's Practice!!

Solve each equation. Check your solution.

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

Math 6 - HOMEWORK (5.4) Name _____

1. Solve the equations. Check your solutions.

Solve	**Check here:**	**Solve**	**Check here:**
$15 = w + 4$		$a - 2 = 10$	
$3b = 21$		$\frac{1}{3}n = 13$	
$y - 7 = 12$		$34 = \frac{y}{2}$	
$\frac{a}{7} = 5$		$\frac{3}{7}n = 24$	
$4x = 24$		$w + 2 = 12$	

Vocabulary Check:

1. Operations that "undo" each other are called _____
2. A mathematical sentence that contains an equal sign is an _____
3. The value of the variable that makes the equation true is called the _____
4. A _____ is a symbol, usually a letter, used to represent an unknown number.