Algebra 1A Q2HW1

NAME _____ DATE _____ PERIOD _____

3-4 Study Guide

Solving Multi-Step Equations

Solve Multi-Step Equations To solve equations with more than one operation, often called **multi-step equations**, undo operations by working backward. Reverse the usual order of operations as you work.

Example **Solve $5x + 3 = 23$.**

$5x + 3 = 23$	Original equation.
$5x + 3 - 3 = 23 - 3$	Subtract 3 from each side.
$5x = 20$	
$\frac{5x}{5} = \frac{20}{5}$	Divide each side by 5.
$\boxed{x = 4}$	

CK $5x + 3 \stackrel{?}{=} 23$

$5(4) + 3 \stackrel{?}{=} 23$

$20 + 3 \stackrel{?}{=} 23$

$23 \stackrel{?}{=} 23$ ✓

Exercises

Solve each equation. Then check your solution.

1. $5x + 2 = 27$
2. $6x + 9 = 27$
3. $5x + 16 = 51$
4. $14n - 8 = 34$
5. $0.6x - 1.5 = 1.8$
6. $\frac{7}{8}p - 4 = 10$
7. $16 = \frac{d - 12}{14}$
8. $8 + \frac{3n}{12} = 13$
9. $\frac{g}{-5} + 3 = -13$
10. $\frac{4b + 8}{-2} = 10$
11. $0.2x - 8 = -2$
12. $3.2y - 1.8 = 3$
13. $-4 = \frac{7x - (-1)}{-8}$
14. $8 = -12 + \frac{k}{-4}$
15. $0 = 10y - 40$

- ALL WORK ON LOOSELEAF
- CHECKS ARE WORTH 50% EACH! Do them!!

✓ ✓ ✓ ✓ ✓ ✓