

Handout 1.1: Solving Equations

Name: _____

Date: _____

Per: _____

Solve each equation. Check your solution.

1) $3y + 4 = 19$

2) $-9x - 8 = 55$

3) $7y - 2y + 4 + 3y = -20$

4) $5g + 18 - 7g + 4g = 8$

5) $5(-2x - 4) - 3(4x + 5) = 97$

6) $7(a + 1) - 3a = 5 + 4(2a - 1)$

7) **GEOMETRY** The perimeter of a regular pentagon is 100 inches. Find the length of each side.

8) **MEDICINE** For Nina's illness her doctor gives her a prescription for 28 pills. The doctor says that she should take 4 pills the first day and then 2 pills each day until her prescription runs out. For how many days does she take 2 pills?

Solve each equation or formula for the specified variable.

9) $E = mc^2$, for m

10) $c(a + b) - d = f$, for a

11) $z = \pi q^3 h$, for h

12) $\frac{x+y}{z} - a = b$, for y

13) $y = ax^2 + bx + c$, for a

14) $wx + yz = bc$, for z

15) **SIMPLIFY** $3x + 8y + 5z - 2y - 6x + z$