

### Solving Two-Step and Three-Step Equations

Solve each equation. Show your work and check your solution.

1.  $2x + 13 = 35$

$x = 11$

2.  $3(2x + 4) = 60$

$x = 8$

3.  $5p - 8 = 42$

$p = 10$

4.  $-9x - 1 = 44$

$x = -5$

5.  $4 = \frac{v}{11} - 2$

$v = 66$

6.  $-x + 1.2 = 12.8$

$x = -11.6$

7.  $-2 + \frac{y}{10} = -6$

$y = -40$

8.  $45 = 5(3x - 6)$

$x = 5$

9.  $7(2x - 3) = 7$

$x = 2$

10.  $-3d - 7d = -30$

$d = 3$

11.  $8 - 4x = 36$

$x = -6$

12.  $\frac{t}{3} + 16 = 34$

$t = 54$

Write an equation for each statement. Solve each problem and check your solution.

13. Eight more than twice a number is eight. Find the number.  $x = 0$

14. Seven decreased by three times a number is forty. Find the number.  $7 - 3x = 40$

$x = -11$

15. Johanna starts the month with \$54 in her savings account. At the end of each week, Johanna adds \$8 to the account.

a) How much will Johanna have in her account after 5 weeks?  $\$94$

b) Write a formula that could be used to calculate Johanna's total savings ( $S$ ) based on how many weeks ( $w$ ) she has deposited money in the bank.  $54 + 8w = S$

c) Use your formula to determine how many weeks have passed when Johanna reaches \$166 in her account.

$54 + 8w = 166$

$w = 14$

\*\*\*\*\* Challenge Set \*\*\*\*\*

1.  $-8p + 7 + 5 = 12$

2.  $4(7n + 8) + 2(8 - n) = 48$

3.  $7(3 + 4b) + 2 = -173$

4.  $\frac{k+4}{2} = -2$

5.  $1\frac{2}{3}x + 5 = 14$