

Algebra II

1-7

Solving Equations in One Variable

Solve - Get the variable on a side by itself.

Solve. (pg 40)

1) $3x - 4 = 5$

$$3x - 4 + 4 = 5 + 4$$

$$\frac{3x}{3} = \frac{9}{3}$$

$$x = 3$$

$$\{3\}$$

11) $-(5-x) = x+3$

$$-5+x = x+3$$

$$-5+x-x = x-x+3$$

$$-5 = 3$$

$$\emptyset$$

21) $2(5t-3) - t = 3(3t-2)$

$$10t - 6 - t = 9t - 6$$

$$9t = 9t$$

\mathbb{R} ← all real numbers

Tell whether each number at the right of the given equation is a solution of the equation.

25) $x(x-3)(x+2) = 0$; -2, -3

$$-2(-2-3)(-2+2) = 0$$

Yes

$$-3(-3-3)(-3+2) = 0$$

$$-3(-6)(-1) = 0$$

No

Solve the equation for the given variable.

33) $I = prt$ for p

$$\frac{I}{rt} = \frac{prt}{rt}$$

$$\frac{I}{rt} = p$$

In each formula, substitute the given values of the variables. Then find the value of the remaining variable, which is printed in red.

43) Volume of a cylinder: $V = \pi r^2 h$; $V = 128$, $r = 8$

$$128 = \pi(8)^2 h$$

$$128 = 64\pi h$$

$$\frac{2}{\pi} = h$$