Solving Equations Worksheet Answer Key

Xs, Ys, and Other Variables, Oh My

1.

$$3x = 45$$
$$x = \frac{45}{3}$$
$$x = 15$$

2.

$$-4x + 4 = 20$$
$$-4x = 20 - 4$$
$$\frac{-4x}{-4} = \frac{16}{-4}$$
$$x = -4$$

3.

$$6y + 5 = 35$$
$$6y = 35 - 5$$
$$\frac{6y}{6} = \frac{30}{6}$$
$$y = 5$$

4.

$$-4a + 12 = 48$$
$$-4a = 48 - 12$$
$$\frac{-4a}{-4} = \frac{36}{-4}$$
$$a = -9$$

5.

$$\frac{4}{5}x = 30$$
$$x = 30 \times \frac{5}{4}$$
$$x = \frac{75}{2} = 37\frac{1}{2}$$

6.

$$7 - (-y) = 21$$
$$7 + y = 21$$
$$y = 14$$

7.

$$\frac{4}{5}x = \frac{1}{15}$$
$$x = \frac{5}{4} \times \frac{1}{15}$$
$$x = \frac{1}{3} \times \frac{1}{4}$$
$$x = \frac{1}{12}$$

8.

$$21x = -105$$
$$x = \frac{-105}{21}$$
$$x = -5$$

9.

$$-\frac{a}{-3} = -9$$
$$\frac{a}{3} = -9$$
$$a = -27$$

10.

$$\frac{g-14}{4} = -2$$
$$g - 14 = -2 \times 4$$
$$14 + g - 14 = -8 + 14$$
$$g = 6$$

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