

1. Solve for unknown x . Use the identity properties.

$$x + 1 = 1$$

$$x + 2 = 2$$

$$x + 3 = 3$$

$$x + 4 = 4$$

$$1 - x = 1$$

$$2 - x = 2$$

$$3 - x = 3$$

$$4 - x = 4$$

$$1x = 1$$

$$2x = 2$$

$$3x = 3$$

$$4x = 4$$

$$\frac{1}{x} = 1$$

$$\frac{2}{x} = 2$$

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

$$\frac{4}{x} = 4$$

2. Solve for x using algebra.

$$x + 1 = 2$$

$$x + 1 = 3$$

$$x + 1 = 4$$

$$x - 1 = 2$$

$$x - 1 = 3$$

$$x - 1 = 4$$

$$x - 1 = -2$$

$$x - 1 = -3$$

$$x - 1 = -4$$

$$-x + 1 = 2$$

$$-x + 1 = 3$$

$$-x + 1 = 4$$

$$2x = 6$$

$$2x = -6$$

$$-2x = 6$$

$$-2x = -6$$

$$\frac{6}{x} = 3$$

$$\frac{6}{x} = -3$$

$$-\frac{6}{x} = 3$$

$$-\frac{6}{x} = -3$$

3. Solve for x using algebra. First, collect the terms.

$$x + 2 + 3 + 4 + 5 + 6 + 7 = 28$$

$$1 + 2 + 3 + 4 + 5 + 6 + 7x = 28$$

$$1 + 2 + 3 + 4 + 5 + 6x + 7x = 28$$

$$x + 2x + 3 + 4 + 5 + 6 + 7 = 28$$

$$1 + 2 + 3 + 4 + 5 + 6x + 7x = 2$$

$$1 + 2x + 3 + 4x + 5 + 6x + 7 = 16$$

4. Solve for x . Use the distribution rule for multiplication.

$$2(x + 1) = 2$$

$$2(x + 1) = 4$$

$$2(2x + 1) = 2$$

$$2(2x - 1) = 6$$

$$-2(2x + 1) = 10$$

$$-2(2x - 1) = 10$$

5. Cross-multiply to solve for x .

$$\frac{1}{x} = \frac{1}{10}$$

$$\frac{1}{10} = \frac{x}{10}$$

$$\frac{-x}{10} = \frac{-1}{10}$$

$$\frac{1}{4} = \frac{x}{16}$$

$$\frac{-1}{4} = \frac{x}{16}$$

$$\frac{1}{4} = \frac{-x}{32}$$

6. Solve for two values of x that solve each equation.

$$|x| = 6$$

$$|2x| = 6$$

$$|x + 1| = 4$$

$$|x - 1| = 4$$

$$|4x + 2| = 2$$

$$|4x - 2| = 6$$

7. Solve for x using your knowledge of squares and cubes.

$$x^2 = 1$$

$$x^3 = 1$$

$$x^3 = -1$$

$$x^2 = 4$$

$$x^3 = 8$$

$$x^3 = -8$$

$$x^2 = 9$$

$$x^3 = 27$$

$$x^3 = -27$$