

Solving Absolute Value Equations

Solve each equation.

1) $|3x| = 9$

2) $|-3r| = 9$

3) $\left|\frac{b}{5}\right| = 1$

4) $|-6m| = 30$

5) $\left|\frac{n}{3}\right| = 2$

6) $|-4 + 5x| = 16$

7) $|-2r - 1| = 11$

8) $|1 - 5a| = 29$

9) $|-2n + 6| = 6$

10) $|v + 8| - 5 = 2$

$$11) |5x| + 5 = 45$$

$$12) 3|-8x| + 8 = 80$$

$$13) 5 - 8|-2n| = -75$$

$$14) -5|3 + 4k| = -115$$

$$15) \frac{|7p + 4|}{8} = 3$$

$$16) 3 - |8x - 6| = 3$$

$$17) 2 - 5|5m - 5| = -73$$

$$18) 6|1 - 5x| - 9 = 57$$

$$19) 3|3 - 5r| - 3 = 18$$

$$20) 5|9 - 5n| - 7 = 38$$

Solving Absolute Value Equations

Solve each equation.

1) $|3x| = 9$

$\{3, -3\}$

2) $|-3r| = 9$

$\{-3, 3\}$

3) $\left|\frac{b}{5}\right| = 1$

$\{5, -5\}$

4) $|-6m| = 30$

$\{-5, 5\}$

5) $\left|\frac{n}{3}\right| = 2$

$\{6, -6\}$

6) $|-4 + 5x| = 16$

$\left\{4, -\frac{12}{5}\right\}$

7) $|-2r - 1| = 11$

$\{-6, 5\}$

8) $|1 - 5a| = 29$

$\left\{-\frac{28}{5}, 6\right\}$

9) $|-2n + 6| = 6$

$\{0, 6\}$

10) $|v + 8| - 5 = 2$

$\{-1, -15\}$

$$11) |5x| + 5 = 45$$
$$\{8, -8\}$$

$$12) 3|-8x| + 8 = 80$$
$$\{-3, 3\}$$

$$13) 5 - 8|-2n| = -75$$
$$\{-5, 5\}$$

$$14) -5|3 + 4k| = -115$$
$$\left\{5, -\frac{13}{2}\right\}$$

$$15) \frac{|7p + 4|}{8} = 3$$
$$\left\{\frac{20}{7}, -4\right\}$$

$$16) 3 - |8x - 6| = 3$$
$$\left\{\frac{3}{4}\right\}$$

$$17) 2 - 5|5m - 5| = -73$$
$$\{4, -2\}$$

$$18) 6|1 - 5x| - 9 = 57$$
$$\left\{-2, \frac{12}{5}\right\}$$

$$19) 3|3 - 5r| - 3 = 18$$
$$\left\{-\frac{4}{5}, 2\right\}$$

$$20) 5|9 - 5n| - 7 = 38$$
$$\left\{0, \frac{18}{5}\right\}$$