

Solving Absolute Value Equations

Solve each equation.

1) $|2 + 5n| = 18$

$$\begin{array}{r} 2 + 5n = 18 \\ -2 \quad -2 \\ \hline 5n = 16 \\ \frac{5n}{5} = \frac{16}{5} \\ n = \frac{16}{5} \end{array}$$

$$\begin{array}{r} 2 + 5n = -18 \\ -2 \quad -2 \\ \hline 5n = -20 \\ \frac{5n}{5} = \frac{-20}{5} \\ n = -4 \end{array}$$

2) $|k - 8| = 16$

3) $|10n - 7| = 7$

4) $|8 - 8p| = 24$

5) $|6x - 7| = 41$

6) $|-9 + 4m| = 27$

7) $|-1 - 6v| = 25$

8) $|-6r + 4| = 4$

9) $|5x + 5| = 15$

10) $|3x - 7| = 22$