Name: _____ Date: _____

Solve each equation. Each has two answers.

1. $|2x - 6| = 8$ $x =$ ___ or $x =$ ___

2. $|3x - 6| = 18$ $x =$ ___ or $x =$ ___

3. $|3x - 3| = 3$ $x =$ ___ or $x =$ ___

4. $|x + 5| = 4$ $x =$ ___ or $x =$ ___

5. $|x - 6| = 2$ $x =$ ___ or $x =$ ___

6. $|3x + 6| = 9$ $x =$ ___ or $x =$ ___

7. $|x - 3| = 8$ $x =$ ___ or $x =$ ___

8. $|x - 4| = 8$ $x =$ ___ or $x =$ ___

9. $|3x - 12| = 3$ $x =$ ___ or $x =$ ___

10. $|x + 2| = 8$ $x =$ _____ or $x =$ _____

Absolute value equations · Solve absolute-value equations — Answer key

1. $|2x - 6| = 8 \rightarrow x = -1$ or $x = 7$
2. $|3x - 6| = 18 \rightarrow x = -4$ or $x = 8$
3. $|3x - 3| = 3 \rightarrow x = 0$ or $x = 2$
4. $|x + 5| = 4 \rightarrow x = -9$ or $x = -1$
5. $|x - 6| = 2 \rightarrow x = 4$ or $x = 8$
6. $|3x + 6| = 9 \rightarrow x = -5$ or $x = 1$
7. $|x - 3| = 8 \rightarrow x = -5$ or $x = 11$
8. $|x - 4| = 8 \rightarrow x = -4$ or $x = 12$
9. $|3x - 12| = 3 \rightarrow x = 3$ or $x = 5$
10. $|x + 2| = 8 \rightarrow x = -10$ or $x = 6$