

Worksheet on absolute value equations and inequalities.

Solve for x :

1. $|x - 2| = 5$

2. $|x + 3| = 4$

3. $|x - \pi| = 3$

4. $|x - a| = b$

5. $|x + a| = b$

6. Fill in the blanks: $|x - 2| < 4$ means the distance between _____ and _____ is _____, therefore the answer will be contain _____ interval, whereas $|x - 2| > 4$ means the distance between _____ and _____ is _____, and the solution will contain _____ intervals.

7. Solve $|x - 2| < 4$.

7. Without doing any more work, solve $|x - 2| > 4$

8. Solve for x : $|x + 3| < 3$

10. $|x + 3| > 3$

11. $|2x + 1| \geq 7$

12. $|2x + 1| < 7$

13. $|2x - 1| = x + 5$

14. $|2x - 1| = |x + 5|$