

This worksheet is homework. Please keep it with your homework for any homework checks.

Do all your work on a separate sheet of paper.

Solve the following quadratic inequalities. Write your solution in interval form and sketch it on the number line.

1. $(x - 2)(x + 5) \leq 0$

2. $(2x + 4)(x - 3) > 0$

3. $x^2 - 3x - 18 \leq 0$

4. $x^2 + 4x + 4 \geq 0$

5. $x^2 - 9 < 0$

6. $2x^2 + x \geq 1$

7. $x^2 > 3(x + 6)$

8. $(x + 4)^2(x - 6) > 0$

9. $x^2 < 4$

10. $3x^2 + x < 2x^2 + 12$

11. $(x - 1)(x + 5) \leq 7$

12. $(4x - 1)(x - 3) < 15$

13. $(x + 2)(x - 5)(x + 6) \leq 0$

14. $(x^2 - 9)(x + 6) > 0$

1. $[-5, 2]$

2. $(-\infty, -2) \cup (3, \infty)$

3. $[-3, 6]$

4. All real numbers

5. $(-3, 3)$

6. $(-\infty, -1] \cup [1/2, \infty)$

7. $(-\infty, -3) \cup (6, \infty)$

8. $(6, \infty)$

9. $(-2, 2)$

10. $(-4, 3)$

11. $[-6, 2]$

12. $(-3/4, 4)$

13. $(-\infty, -6] \cup [-2, 5]$

14. $(-6, -3) \cup (3, \infty)$