

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