

Section 5.7 Worksheet #1
 Quadratic Inequalities

Algebra 2

Name _____

Period _____

#1-3 Determine whether the ordered pair is a solution of the inequality. Show your work then answer **yes or no**.

1. $y < x^2 - 2x + 4$, (1,2)

2. $y > 2x^2 + x - 5$, (-2,1)

3. $y \leq -2x^2 + 5x + 6$, (4,-4)

#4-9 Match the inequality with its graph.

_____ 4. $y \geq -x^2 + 4x - 3$

_____ 5. $y \leq -x^2 - 4x - 3$

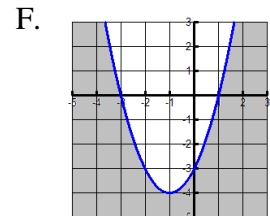
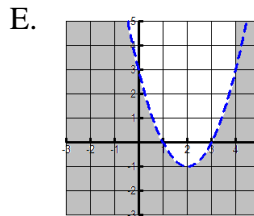
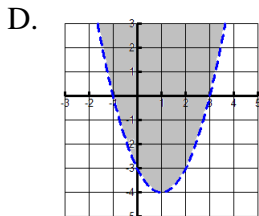
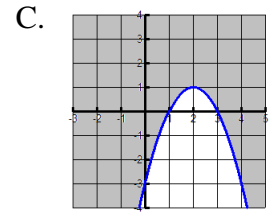
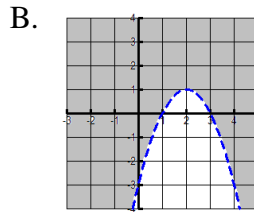
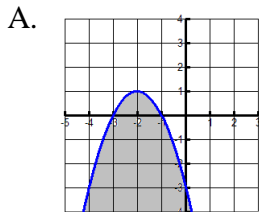
_____ 6. $y \leq x^2 + 2x - 3$

_____ 7. $y < x^2 - 4x + 3$

_____ 8. $y > -x^2 + 4x - 3$

_____ 9. $y > x^2 - 2x - 3$

Use A-F to match with quadratic inequalities #4-9.



#10-12 Solve each quadratic inequality algebraically, then graph the solution on a number line.

10. $x^2 - 2x - 15 < 0$

11. $x^2 + 7x + 12 \geq 0$

12. $3x^2 + 4 \leq 7x$

#13-15 Graph each quadratic inequality.

13. $y \leq x^2 - 6x + 8$

14. $y \leq -x^2 + 6x - 7$

15. $y > 2x^2 - 4x - 6$

