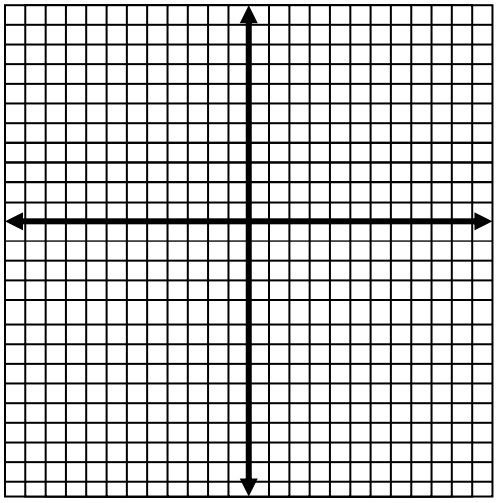
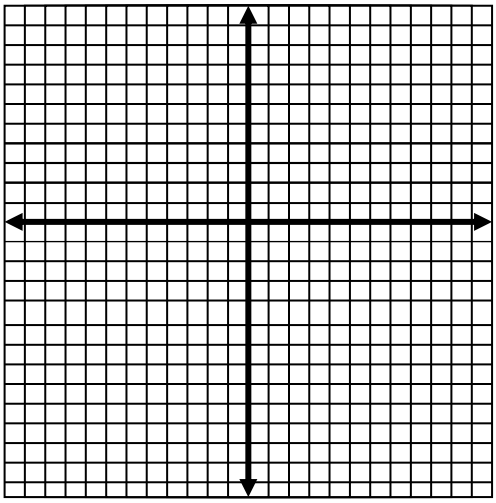
Chapter 5.1, 5.6-5.7 Review Worksheet
Algebra II

Graph. Label your <u>vertex</u> and label the <u>axis of symmetry</u>. Name _____

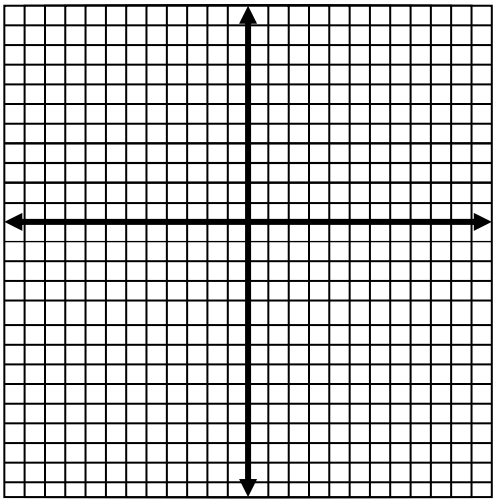
1. $y = 2x^2 + 8x + 5$



2. $y = (x + 2)(x - 4)$



3. $y = -2(x - 3)^2 - 11$



Write the quadratic function in <u>standard form</u>.

4. y = 3(x - 2)(x + 9)

5. $y = 4(x - 2)^2 + 14$

Use the <u>quadratic formula</u> to solve the equation.

6. $x^2 + 5x - 3 = 0$

7. $2x + x^2 - 5 = 0$

8. $5x^2 + 9 = -x + 8$

9. $3x^2 + 2x = x^2 + 5x - 1$

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Use the <u>quadratic formula, isolation, or factoring</u> to solve the equation.

10. $-8x^2 + 3 = -61$

11. $3x^2 + 2x = 8$

Find the <u>discriminant</u> of the quadratic equation and give the <u>*number and type of solutions*</u> of the equation.

12. $-3x^2 + x - 4 = 0$

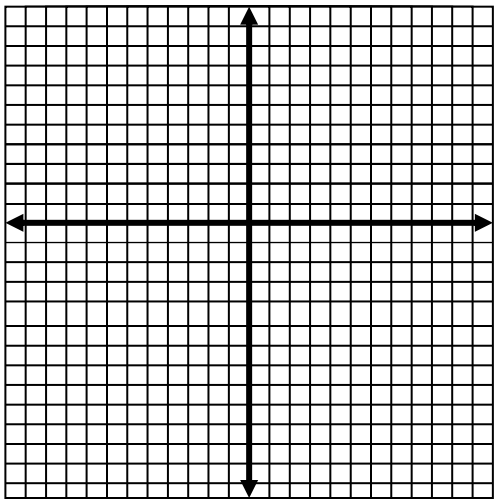
13. $x^2 + 3x + 2 = 0$

14. $x^2 - 3x + 4 = 2x^2 - 3$

15. $3x^2 - 2x = x^2 - 8$

Graph the <u>inequality</u>.

16. $y \leq 2x^2 + 1$



17. $y > -x^2 + 4x - 3$