

Study Guide for the final: 1 of 7

This document may be collected and graded. Do your best work and do all problems.

Name _____ Points received: _____/10

Objective #1: Determining a vertex and min/max from an equation.

Objective #2: Determining the axis of symmetry from an equation.

Directions: Show your work to receive credit. See your class notes if you forget what work to complete.

For each question:

- Find the vertex
- The graph has either a minimum or a maximum. Which one?
- What is the equation for the axis of symmetry?

REMEMBER: x-coordinate = $-b / 2a$

REMEMBER: x-coordinate is the axis of symmetry

1. $y = x^2 - 6x + 11$

2. $y = 0.5x^2 - 3x + 7$

3. $y = -x^2 + 2x + 1$

4. $y = (x - 1)^2$

Review portion is on the back
Review portion for the final

5. Factor $x^2 - 64$

6. Simplify $\frac{6x^2 - 36x - 16}{2x^2 - 14x - 36}$

7. Simplify $\frac{a^4 b^{-7}}{b^5}$

8. Create an equation that is parallel to $= \frac{-3}{4}x - 2$ containing $(-3, 5)$.

9. Simplify $(2x - 1)(x^2 - 4x + 10)$

10. Evaluate $4x^0 y^{-2} z^3$ when $x = 3, y = -5$ and $z = -2$