

Study Guide for the final: 3 of 7

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

Name _____

Points received: _____/10

Objective #1: Find x-intercepts of a parabola (a.k.a. zero's)

Objective #2: Solve quadratic equations with factoring

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

For each question:

- Graph and look for where the graph touches the x-axis (those are x-intercepts)
or
- Factor using a 2x2 grid and set each binomial equal to zero for the two solutions.

1. Find the x-intercepts for the following

$$y = x^2 - 2x - 15$$

2. Solve with factoring.

$$x^2 + 2x - 99 = 0$$

3. Solve with factoring.

$$2x^2 - 9x - 5 = 0$$

4. Find the x-intercepts for the following

$$y = 3x^2 + 10x - 8$$

Review portion for the final

5. Find the GCF of the polynomial $24a^3b^2 - 16a^2 + 44ab$

6. Simplify $2(3x^4)^2$

7. Factor $2x^2 + 20x + 42$

8. Simplify $18\sqrt{3} + 10\sqrt{3}$

9. Line A travels through points (3, 5) and (-2, -1). Line B is perpendicular to line A. Determine the slope of line B.

10. Draw a line of best fit on the graph below. Then write an equation that best represents the line that you drew. It should have a slope and a y-intercept.

