

Study Guide for the final: 5 of 7

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

Name _____

Points received: _____/11

Objective #1: Solve quadratics with the quadratic formula

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

For each question: Use the quadratic formula to solve each question.

- Remember the quadratic formula – it will need to be memorized
- Find the discriminant ($b^2 - 4ac$) first – you'll need to do it anyway and it can save you work if you do it first.

1. $y = 3x^2$

2. $y = -2x^2 + 4$

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

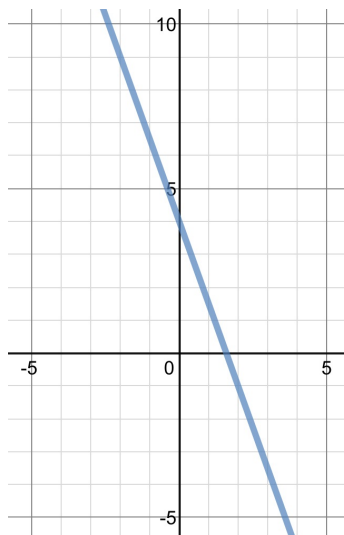
4. $y = -x^2 - 9x - 18$

5. $y = x^2 + 3x - 10$

6. What is the discriminant and what does it tell you?

Review portion for the final

7. What is the equation of the line?



8. Simplify $\frac{35x^3y^5z^{-4}}{14x^2z^0}$

9. Simplify $(3.2x^2 - 4.1x + 2.7) + (-2.5x^2 - 0.4x + 9.3)$

10. Simplify the following expression and write the polynomial in standard form.
HINT: Standard form is where the terms are written from most powerful to least powerful.

$$(3x^3 - 2x^5 + 5) - 2(-4x^2 - 4)$$

11. Use a system of equations to solve.

The sum of two different numbers (x and y) is 472. The difference of the numbers is 222. If $x > y$, what are the values of x and y ?