

Writing Projects are to be handed in when you come to a testing center to take your test. See the course Schedule to know what is due when.

Only use one side of each sheet of paper you use for a project. Do a nice writeup!

1. The three ways to solve a quadratic equation.

- a. The student will solve $18x^2 - 63x - 10 = 0$ in two ways:
 - i. factoring
 - ii. quadratic formula
- b. The student will solve $x^2 + 5x - 3 = 0$ in two ways:
 - i. quadratic formula
 - ii. completing the square
- c. The student will discuss briefly (two or three paragraphs) the advantages or disadvantages of each method.

2. Completing the Square to graph a quadratic function.

- a. A worksheet is provided, with explanations and exercises: [Writing Project 2 Handout](#). Students always ask “Where’s Writing Project 2?” Click on the link!
- b. The student will complete the square and graph the function by transforming the function $f(x) = x^2$, using Section 1.5 techniques.

3. Take-Home Test

- a. I will deliver this test to you via e-mail.
- b. This will coincide with Test 3, and count as *part* of the Test 3 score (20%),

4. The three kinds of Linear Systems

- a. The student will submit three examples of linear systems in *three variables* and solve them using Gauss-Jordan reduction.
 - i. One of the three systems will be inconsistent.
 - ii. One of the systems will be consistent, with a unique solution.
 - iii. One of the systems will be consistent, with infinitely many solutions.
- b. The student will discuss each system in a few sentences.