

Math 150A Writing Project

In order to satisfy the GE university writing requirements for the course, you are to complete a writing project. You will complete the problem below and produce a write-up of the problem in your own words that should include the following:

1. An introduction to the problem. If done well the reader should know what the problem is and should be interested in its solution.
2. The setup. Any and all variables that will be used in the solution of the problem must be clearly defined.
3. The solution. Any relevant work that leads to the solution should be included. Any obvious steps may be skipped (for example you don't have to show every step of a derivative that you take) but make sure that there is enough there for the reader to understand the process.
4. The conclusion. You must state the solution and interpret your results.

Problem

Your company has just developed a new material that can be used in the production of 20 ounce containers for liquids that is safe and biodegradable. You have been asked to determine the best "shape" for containers – in other words, can you determine which containers (regular prisms or cylinder) hold 20 ounces but can be produced at the best price. The cost to produce the base and top of a container is about 0.3 cents per square centimeter, that is \$0.003 per square centimeter. The cost to produce the sides of each container is about 0.2 cents per square centimeter or \$0.002 per square centimeter.

Requirements:

- At most 3 **FULL** pages, typed, double-spaced, 12 point font, 1 inch margins (not including figures).
- Use an **equation editor** for all of your equations.
- Include labeled figures on a separate page at the end and make sure to reference to them in your paper to clarify any variables or explanation.
- No grammatical, punctuation, or spelling errors. Make sure it is a **professional** paper.
- Your name and title should be included in the header of the document and not the body (see sample on TITANium).

Academic Dishonesty

I will pursue any cases of plagiarism. If you work with another person, be sure to produce the write-up independently.

Draft 1

- Your first draft will be due on **Tuesday, April 26, 2016** at the beginning of class (3 PM).
- The first draft should be a **physical copy of your paper** so that I can make comments.
- Your grade for the first draft will be based on correctness, completion, and timeliness. If you turn in a rough draft of the paper that has answered the question correctly and the paper is on time then you will earn 25 points towards your Written Homework grade.

Draft 2

- Your final draft will be due on **Tuesday, May 10, 2016** at 11:55 P.M. through TITANium.
- Your grade will be earned in two parts:
 - All papers turned in on time will earn 25 points in the Written Homework grade.
 - The Written Project grade will be determined according to the rubric on the back of this page. Note that Written Project category is different than the Written Homework category and is worth 10% of your final grade.