

FE341: Microeconomics  
Homework 4  
Due October 18<sup>th</sup>

**Do 3 of the following 4:**

1. From the textbook page 253: Chapter 7 Questions for Review #5
2. From the textbook page 253: Chapter 7 Questions for Review #6
3. From the textbook page 253: Chapter 7 Questions for Review #7
4. From the textbook page 253: Chapter 7 Questions for Review #8

**Do 3 of the following 4:**

5. The total cost function for a firm producing widgets is  $TC = 4q^2 + 3q + 100$ , where  $q$  is the number of widgets produced per week.
  - a. Calculate and graph the average cost function, and calculate and graph the marginal cost function.
  - b. At what level of widget output does average cost reach a minimum, and what is the average cost at this level of output?
  - c. Show that the marginal cost curve intersects the average cost curve at its minimum.
6. From the textbook page 254: Chapter 7 Exercises #8
7. From the textbook page 254: Chapter 7 Exercises #10
8. From the textbook page 254: Chapter 7 Exercises #11