MA 103
Quiz 8

You may use all resources you brought into the classroom including technology, textbook, notes and brain. You may not use someone else's resources or the internet to solve the following problems. You will have 10 minutes to take this quiz.

1. A storage facility currently has 400 kilograms of a particular radioactive isotope. Left by itself this isotope will decay at the rate of 15% per year. Each year an additional 150 kilograms of the isotope is placed in storage. How many kilograms of the isotope will be in the storage facility in ten years?

2. Consider the supply and demand functions:

$$S(p) = 10000(p - 2)$$

$$D(p) = 5000(20 - p)$$

Find the equilibrium price.

3. Consider the supply and demand functions:

$$S(p) = 10000(p - c)$$

$$D(p) = 5000(20 - p)$$

where c is a parameter representing the cost of ingredients. How does the equilibrium price depend on the cost of ingredients?