Name:
Section 1.4 - In class example
Math 151 – Spring 2018

1. A company with fixed costs of \$6000 and marginal costs of $\$10/item$ sells goods at \$12 per item.

   (a) Write down the cost and revenue as functions of the quantity, q.

   (b) Find the break-even point and illustrate it graphically.

2. The demand and supply curves for a product in terms of price, p are

$$q = 2500 - 20p, \quad q = 10p - 500$$

   (a) Find the equilibrium price and quantity.

(b) Illustrate your the equilibirum price and quantity from part (a) on a graph.

(c) A specific tax of \$6 per unit is imposed on the suppliers. Find the new equilibrium price and quantity. Represent your solution on your graph in part (b).

(d) How much of the \$6 tax is paid by the consumers and how much by producers?

(e) What is the total revenue received by the government?