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 equilibrium 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?