Question with solutions:

a)

Suppose that the demand and supply functions for good X are Qd = 50 - 8P and Qs = -17.5 + lOP a. What are the equilibrium price and quantity?

a) The equilibrium is in the point, where Qd = Qs So, we put the equations of the demand and supply into the equality.

$$50 - 8P = -17.5 + 10P$$
$$18P = 67.5$$
$$P = \$3.75 \text{ is equilibrium price.}$$
$$Q = 50 - 8*3.75 = 20 \text{ units is equilibrium quantity.}$$

b) What is the market outcome if price is $2.75? What do you expect to happen? Why?

For the lower price the quantity demanded will rise and the quantity supplied will fall, so there will be a shortage of product on the market.

c) What is the market outcome if price is $65.25? What do you expect to happen? Why?

For the much more higher price the quantity demanded will fall sharply and the quantity supplied will rise sharply, so there will be a great surplus of the product on the market.

d) What happens to equilibrium price and quantity if the demand function becomes Qd = 59 - 8P?

Let us repeat the steps from the question 1.
Qd = Qs
59 - 8P = -17.5 + 10P
18P = 78.5
P = $4.36, Q = 24 units are new equilibrium price and quantity.