1. Given the demand and the supply for cars at the market.

![Graph showing demand (D1) and supply (S1) curves]

For the following questions, refer to the graph shown above.

a. Label the equilibrium point as E1, the equilibrium quantity as Q1, and the equilibrium price as P1.

b. Show how the supply curve will change if car manufacturers achieve a technological breakthrough that allows them to produce cars more cheaply.

c. If the price stayed at P1, would a surplus or a shortage result from the technological breakthrough described in part (b)? Answer in words, and show on the graph.

d. Assuming market forces work quickly; show the new equilibrium price to which the market will adjust. Label this point as E2. Label the new equilibrium quantity as Q2, and the new equilibrium price as P2.

e. In words, summarize the information that you have shown in your adjustments to the graph in parts (a) through (d).