

$$P = 100\,000 - 2Q \text{ and } P = -20\,000 + Q, \text{ subsidy} = \$10\,000 \text{ per student.}$$

(a) In equilibrium  $Q_d = Q_s$ ,  $P_d = P_s$ , so:

$$100\,000 - 2Q = -20\,000 + Q$$

$$Q_e = 40,000 \text{ thousands of students.}$$

$$P_e = -20\,000 + 40\,000 = \$20,000$$

(b) With the subsidy the student will pay the same price  $P = \$20,000$ . The schools will receive  $20,000 + 10,000 = \$30,000$  per student.

The number of students in schools will increase, as now schools receive more money for every student.

(c) To find the total cost to the government we need to know at least the number of students before the paying the subsidy.

(d) Show your results in a diagram.

