Quiz 5: Production and Costs

Farmers produce corn from land and labor. The labor cost in dollars to produce \( y \) bushels of corn is \( C(y) = y^2 + 1 \) where 1 is fixed cost and sunk in the short-run. There are 100 identical farms which all behave competitively.

(i) What is the short-run individual farmer’s supply curve of corn?

(ii) What is the short-run market supply of corn?

(iii) Suppose the demand curve of corn is \( D(p) = 220 - 50p \). What is the short-run equilibrium price and quantity sold?

(iv) What is the long run equilibrium price and quantity sold? How many farms enter or exit from this market?