

27. Incorrect. The answer is false not true. The efficient price is where price equals marginal cost. Social welfare is the area below demand and above marginal cost

$$W = \int_0^Q P(Q) dQ - \int_0^Q MC(Q) dQ$$

When we pick a Q to maximize welfare, we get

$$\frac{\partial W}{\partial Q} = \frac{\partial (\int_0^Q P(Q) dQ - \int_0^Q MC(Q) dQ)}{\partial Q} = P(Q) - MC(Q) = 0 \Rightarrow \text{Price equals marginal cost.}$$

Provided second order conditions hold.

$$\frac{\partial(P(Q))}{\partial Q} - \frac{\partial(MC(Q))}{\partial Q} < 0 \text{ or slope of demand is less than slope of marginal cost.}$$