



Q 27. At the market price of Rs 10, a firm supplies 4 units of output. The market price increases to Rs 30. The price elasticity of the firm's supply is 1.25. What quantity will the firm supply at the new price?

Ans: Initial Price, $P_1 = \text{Rs } 10$

Initial Output, $Q_1 = 4$ units

Final Price, $P_2 = \text{Rs } 30$

$$\Delta P = P_2 - P_1$$

$$= \text{Rs } 30 - 10 = \text{Rs } 20$$

Elasticity of supply, $e_s = 1.25$

$$e_s = \frac{\Delta Q}{\Delta P} \times \frac{P_1}{Q_1}$$

$$1.25 = \frac{\Delta Q}{20} \times \frac{10}{4}$$

$$= 1.25 \times 8 = \Delta Q$$

$$= \Delta Q = 10 \text{ units}$$

Thus final output supplied, $Q_2 = \Delta Q + Q_1$

$$Q_2 = 10 + 4 = 14 \text{ units}$$

***** END *****