

Monopolist maximize his profit when  $MR = MC$

$$MR = TR'$$

$$TR = P * Q = (1200 - Q) * Q = 1200Q - Q^2$$

$$MR = 1200 - 2Q$$

If Mountain spring water can be produced at no cost then  $MC = 0$

$$1200 - 2Q = 0$$

$$Q = 600$$

$$P = 1200 - 600 = 600$$

**Answer: Q=600; P=600**