

ΘΕΜΑ Δ

$$\Delta_1) 2x + 2y = 80 \Leftrightarrow y = 40 - x$$

$$E(x) = x \cdot (40 - x) = -x^2 + 40x$$

$$x \in (0, 40)$$

$$\Delta_2) E'(x) = -2x + 40$$

| | | | |
|---------|---|----|----|
| x | 0 | 20 | 40 |
| $E'(x)$ | + | 0 | - |
| $E(x)$ | ↗ | | ↘ |

$$\Delta_3) x = 20 \text{ m} \quad E(20) = 400 \text{ m}^2$$

$$\Delta_4) x_A < x_B \Leftrightarrow E(x_A) > E(x_B)$$

$$\text{αφού } E \downarrow [20, 40)$$