

Week A108260019

$$1) A: y = \frac{L}{2} = \frac{K}{4} \Rightarrow L^* = 2g, K^* = 4g \quad C = 1 \times 2g + 2 \times 4g = 10g$$

$$L_{TCA} = 10g + 40$$

$$B: y = \frac{L}{4} = \frac{K}{2} \Rightarrow L^* = 4g, K^* = 2g \quad C = 1 \times 4g + 2 \times 2g = 8g \quad L_{TCB} = 8g + 60$$

$$2) g = 20 \quad T_{CA} = 240 \quad T_{CB} = 260 \Rightarrow \text{prefers } A$$

$$3) g = 40 \quad T_{CA} = 440 \quad T_{CB} = 420 \Rightarrow \text{prefers } B$$

$$4) T_{CA} < T_{CB} \quad \begin{array}{l} 10g + 40 < 8g + 60 \\ 2g < 20 \\ g < 10 \end{array}$$