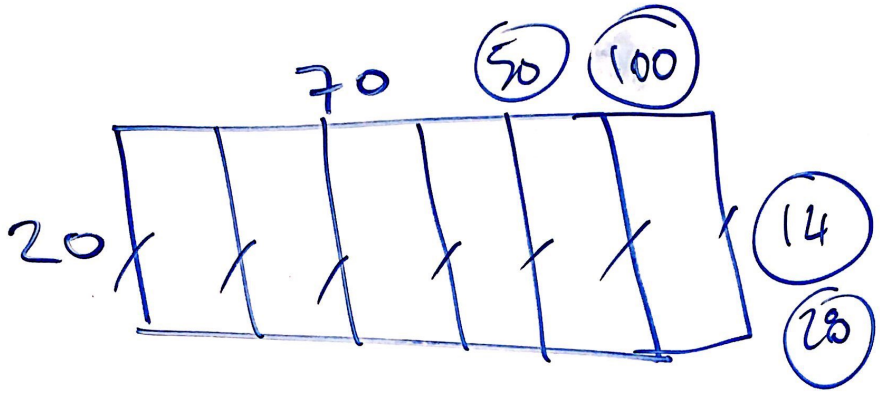

$P = 2(70) + 20(7) = 140 + 140 = 280 m.$

$P = 2(100) + 7(14) = 200 + 98 = 298 m.$

$P = 2(50) + 7(28) = 100 + 196 = 296 m.$

$f''(x)$

$f''(x_0) > 0 \longrightarrow$ Min.

$f''(x_0) < 0 \longrightarrow$ Max.

$f''(x_0) = 0$ No es concluyente.

120 TN — 1 año

$U = I - C$

D: $P = 5600 - 2q$

$0 \leq q \leq 120$

$I = pq$

$I = 5600q - 2q^2$

$C = 12q^2 + 30{,}000$

$C = 12q^2 + 30{,}000 + 50{,}000$

a) $q = ?$ $U = max = ?$

$U = 5600q - 2q^2 - 12q^2 - 30{,}000$

$U = -14q^2 + 5600q - 30{,}000$

$U' = -28q + 5600$

$U' = 0$

$q = \frac{5600}{28} = 200$

$U(0) = -30{,}000$

$U(120) = 440{,}400.00$

b) Sin restricción

b)

$U(200)$

c) $0 \leq$

5

$U = -14q^2 + 5600q - 30{,}000$

$U' = -28q + 5600$

$U' = 0$

$q = \frac{5600}{28} = 200$

$U(0) = -30{,}000$

$U(120) = 440{,}400.00$

-30,000

b)

$U(200) = 530{,}000.00$

c) $0 \leq q \leq 300$

50,000 $

$U = -14q^2 + 5600q - 30{,}000 - 50{,}000$

$U = -14q^2 + 5600q - 80{,}000$

$U' = -28q + 5600 = 0$

$q = 200$

$U(200) = 480{,}000$

$U(0) = -80{,}000$

$U(300) = 340{,}000$