EJERCICIOS

1) Datos

$C_1 = 13000$

$C_2 = 15000$

$t_1 = 3$ años

$t_2 = 5$ años

$R = 10\%$

a) $C'' = 30000$

$$t_{c''} = \frac{30000 - (13000(1 - 10\% \cdot (3)) + 15000(1 - 10\% \cdot (5)))}{30000 \times 10\%}$$

$t_{c''} = 4,47$ años

b) $C'' = 13000 + 15000 = 28000$

$$t_{c''} = \frac{13000 \cdot 3 + 15000 \cdot 5}{28000} = 4,07 \text{ años}$$

2) Datos

$C_1 = 160$

$C_2 = 200$

$C_3 = 225$

$t_1 = 45$ meses

$t_2 = 90$ meses

$t_3 = 120$ meses

$K = 10\%$ san $\rightarrow \dfrac{10\%}{6}$ men.

a) $C'' = 600$

$$t_{c''} = \frac{600(150(1 - 5/3\% \cdot 45) + 200(1 - 5/3\% \cdot 90) + 225(1 - 5/3\% \cdot 120))}{600 \cdot 5\%/3}$$

$t_{c''} = 88,75$

b) $C'' = 575$

$$t_{c''} = \frac{150 \cdot 45 + 200 \cdot 90 + 120 \cdot 225}{575}$$

$t_{c''} = 90$

3) Data

$C_1 = 800$

$C_2 = 1500$

$C_3 = 3200$

$t_1 = 20$ días

$t_2 = 45$ días

$t_3 = 60$ días

$K = 5\% \to \dfrac{1}{73\%}$ diario

Para $t = 0$

$C_1 = 800\left(1 - \dfrac{1}{73\%} \cdot 20\right) = 797,81\$$

$C_2 = 1500\left(1 - \dfrac{1}{73\%} \cdot 45\right) = 1490,75\$$

$C_3 = 3200\left(1 - \dfrac{1}{73\%} \cdot 60\right) = 3173,70\$$

$$C = 5462,26\$$$

a) $C' = 6000\$ \qquad C = C'(1 - d t)$

$$t_{c''} = \dfrac{1 - \dfrac{5462,26}{6000}}{\dfrac{1}{73\%}}$$

$t_{c''} = 654,25$ días

$\boxed{t_{c''} = 1 \text{ año } 9 \text{ meses } 24 \text{ días}}$

b) $C' = 5500$

$$t_{c''} = \dfrac{1 - \dfrac{5462,26}{5500}}{\dfrac{1}{73\%}}$$

$t_{c''} = 50,09$ días

$\boxed{t_{c''} = 1 \text{ mes } 20 \text{ días}}$