

حل التمرين 01:

$I = ? , \quad c = 1000 \text{ DA} , \quad t = 6 \% \quad n = ?$

25/dec	janv	fev	Mars	avril	mai	juin	juillet	aout	sept	15oct
6jrs	31jrs	28jrs	31jrs	30jrs	31jrs	30jrs	31jrs	31jrs	30jrs	15jrs

$31 - 25 = 6 \text{ jrs}$

$n = 294 \text{ Jrs}$

$$I = C \cdot \frac{i}{100} \cdot n$$

المعدل السنوي :

المعدل سداسي :

المعدل ثلاثي :

= 49

حل التمرين 02:

$$\begin{cases} c_1 - c_2 = 250 \\ I_1 = 2 I_2 \end{cases}$$

$c_1 = ? , \quad n_1 = 8 \text{ mois} , \quad t_1 = 6 \%$

$c_2 = ? , \quad n_2 = 6 \text{ mois} , \quad t_2 = 5 \%$

$$\begin{cases} c_1 - c_2 = 250 \dots\dots\dots(1) \\ I_1 = 2 I_2 \dots\dots\dots(2) \end{cases}$$

$c_1 = c_2 + 250 \dots\dots\dots(3)$

$= \frac{c_1 \times t_1 \times n_1}{1200} = 2 \left(\frac{c_2 \times t_2 \times n_2}{1200} \right) \dots\dots\dots(4)$

نعوض المعادلة (3) في (4) نجد :

$$c_2 = 1000 \text{ da}$$

ونعوذها في المعادلة (3) نجد : $c_1 = c_2 + 250$

$$c_1 = 1250$$

$$I_1 = \frac{c_1 \times t_1 \times n_1}{1200}$$
$$= \frac{1250 \times 6 \times 8}{1200}$$
$$= 50 \text{ DA}$$

$$I_2 = 25 \text{ DA}$$

حل التمرين 03:

$$c = ? , \quad A = 60.625 \text{ DA} , \quad t = 5 \% \quad n = 75 \text{ jrs}$$

$$A = C + I \text{ -----/}$$

$$I = C \cdot \frac{t}{100} \cdot n$$

$$A = C + C \cdot \frac{t}{100} \cdot n$$

$$A = C \left(1 + \frac{t}{100} \cdot n \right)$$

$$A = C \left(1 + \frac{t}{36000} \cdot n \right)$$

$$c = \frac{A}{\left(1 + \frac{t}{36000} \cdot n \right)} = \frac{60.625}{\left(1 + \frac{375}{36000} \right)} = 60.000 \text{ DA}$$

حل التمرين 04:

$$c_1 = 800 \text{ DA} , \quad n_1 = ? , \quad t_1 = 6 \%$$

$$c_2 = 825 \text{ DA} , \quad n_2 = n_1 + 3 , \quad t_2 = 5 \%$$

$$\begin{cases} A_1 = C_1 + I_1 \\ A_2 = C_2 + I_2 \end{cases}$$

$$\begin{cases} A_1 - A_2 = 8.25 \text{(1)} \\ n_2 = n_1 + 3 \text{(2)} \end{cases}$$

$$\begin{cases} C_1(1 + \frac{t_1}{1200} \cdot n_1) - C_2(1 + \frac{t_2}{1200} \cdot n_2) = 8.25 \dots \dots \dots (3) \\ n_2 = n_1 + 3 \dots \dots \dots (2) \end{cases}$$

نعوض المعادلة (2) في (3) نجد :

$$\begin{aligned} 800 * (1 + \frac{6 * n_1}{1200}) - 825 (1 + \frac{4n_1 + 12}{1200}) &= 8.25 \\ = 800 + \frac{4800n_1}{1200} - 825 - \frac{3300n_1 + 9900}{1200} &= 8.25 \\ = -30.000 + 4800 n_1 - 3300 n_1 + 9900 &= 9900 \\ 1500 n_1 &= 30.000 \end{aligned}$$

$n_1 = 20 \text{ jrs}$

حل التمرين 05:

$t = ? ; I = 12382.5 ; C = 127000 ; n = 18 \text{ mois} ; A = ?$

$I = C \cdot \frac{t}{100} \cdot n$

$t = \frac{1200 \times I}{C \cdot n}$

$t = \frac{1200 \times 12382.5}{127000 \times 18}$

$t = 6.5 \%$

حل التمرين 06:

$A_1 = 1612.50 ; n_1 = 9 \text{ mois}$

$A_2 = 1575 ; n_2 = 6 \text{ mois}$

$C_1 = C_2$

$$\begin{cases} A_1 = C_1 + I_1 \\ A_2 = C_2 + I_2 \end{cases} \implies \begin{cases} C_1 = A_1 - I_1 \\ C_2 = A_2 - I_2 \end{cases} \implies A_1 - A_2 = I_1 - I_2$$

$9 \text{ mois} - 6 \text{ mois} = 9 \text{ mois} - 6 \text{ mois}$

$$A_1 - A_2 = I_1 - I_2$$

$$9 \text{ mois} - 6 \text{ mois} = 9 \text{ mois} - 6 \text{ mois}$$

$\underbrace{\hspace{1.5cm}}_{3 \text{ mois}}$

$$1612.5 - 1575 = I_{3\text{mois}}$$

$$I_{3\text{mois}} = 37.5$$

$$I_{6\text{mois}} = I_{3\text{mois}} * 2$$

$$= 37.5 * 2$$

$$I_{6\text{mois}} = 75$$

$$A_{2(6 \text{ mois})} = C_2 + I_{2(6 \text{ mois})}$$

$$c_2 = A_2 - I_2$$

$$c_2 = 1575 - 75 = 1500$$

$$A = S$$

$$t = i$$

حل التمرين 07:

$$n = ? ; c = 50.000 ; i = 6\% \quad S = 50.337 \quad \text{date} = 26/03/1996$$

$$S = C + I$$

$$I = S - C$$

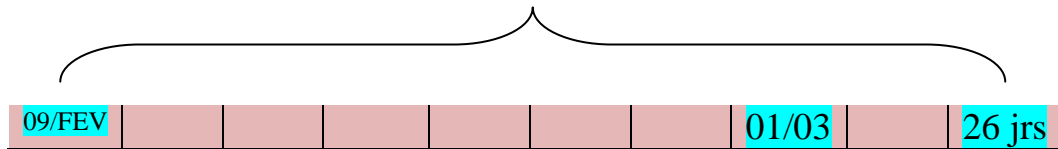
$$I = 50.375 - 50.000 = 375$$

$$I = \frac{C \cdot i \cdot n}{36000}$$

$$n = \frac{36000 * I}{c \cdot i}$$

$$n = \frac{36000 * 375}{50.000 * 6}$$

$$n = 45 \text{ jrs}$$



26/03/1996

حل التمرين 08:

$$n = 1 ; c_1 = ? ; c_2 = ? ; c_1 + c_2 = 13200 ; c_1 = \frac{5}{6} c_2 \quad S_1 = 6300$$

$$S_1 = C_1 + I_1$$

$$c_1 + c_2 = 13200$$

$$\frac{5}{6}c_2 + c_2 = 13200$$

$$c_2(\frac{5}{6} + 1) = 13200$$

$$\frac{11}{6} c_2 = 13200 \quad c_2 = 7200$$

$$c_1 = \frac{5}{6} c_2$$

$$c_1 = \frac{5}{6} 7200$$

$$c_1 = 6000$$

$$S_1 = C_1 + I_1$$

$$s = c(1 + \frac{i \cdot n}{100})$$

$$s/c = (1 + \frac{i \cdot n}{100})$$

$$\frac{s}{c} - 1 = \frac{i \cdot n}{100}$$

$$\frac{6300}{6000} - 1 = \frac{i \cdot 1}{100}$$

$$1.05 - 1 = \frac{i}{100}$$

$$0.05 = \frac{i}{100}$$

$$i = 5$$