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Nombre del profesor:

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Nombre del trabajo:

Ejercicios núm. 1

Materia:

PASIÓN POR EDUCAR

Matemáticas financieras

Grado:

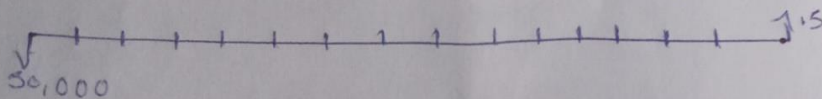
3er cuatrimestre

Comitán de Domínguez Chiapas a 22 de mayo de 2022.

$$\begin{aligned} \star P_0 &= 50,000 \\ n &= 15 \\ i &= 3.5 \end{aligned}$$

$$f_1 = 50,000 (1 + 0.035)^{15} = 83767.44$$

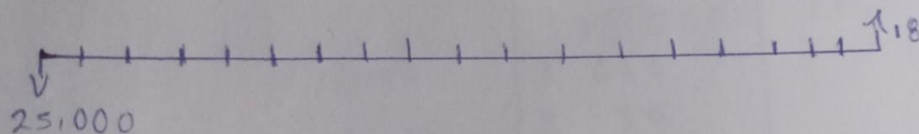
$$I = 3.5\% \div 100 = 0.035$$



$$\begin{aligned} \star P_0 &= 25,000 \\ n &= 18 \\ i &= 4\% \end{aligned}$$

$$f_1 = 25,000 (1 + 0.04)^{18} = 50645.41$$

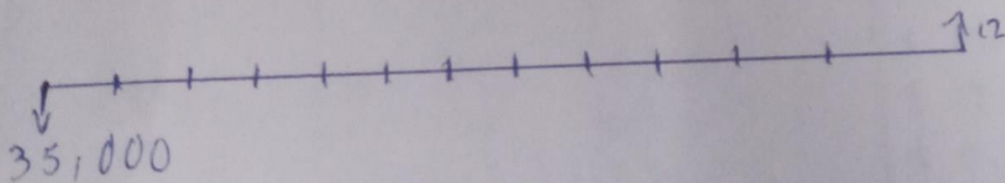
$$I = 4\% \div 100 = 0.04$$



$$\begin{aligned} \star P_0 &= 35,000 \\ n &= 12 \\ i &= 4.2\% \end{aligned}$$

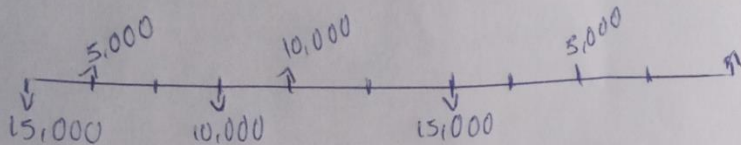
$$f_1 = 35,000 (1 + 0.042)^{12} = 57343.03$$

$$I = 4.2\% \div 100 = 0.042$$



I. = 5 %

$5\% \div 100 = 0.05$



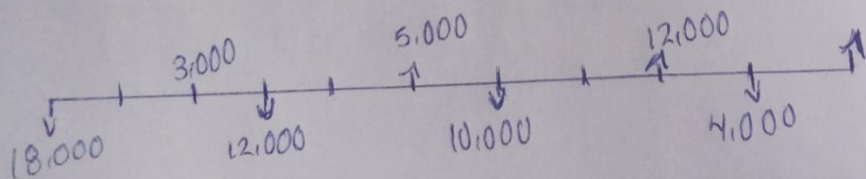
$$\begin{aligned}
 f_1 &= 15,000 (1+0.05)^{10} = 24433.41 \\
 f_1 &= 10,000 (1+0.05)^7 = 14071.00 \\
 f_1 &= 15,000 (1+0.05)^4 = 18232.59 \\
 \hline
 \text{TOTAL} &= 56737.00
 \end{aligned}$$

$$\begin{aligned}
 &56737.00 \\
 &- 26670.09 \\
 \hline
 &30066.91
 \end{aligned}$$

$$\begin{aligned}
 f_c &= 5,000 (1+0.05)^9 = 7756.64 \\
 f_c &= 10,000 (1+0.05)^6 = 13,400.95 \\
 f_c &= 5,000 (1+0.05)^2 = 5512.50 \\
 \hline
 \text{TOTAL} &= 26670.09
 \end{aligned}$$

I. 2.8 %

$2.8\% \div 100 = 0.028$



$$\begin{aligned}
 f_1 &= 18,000 (1+0.028)^{10} = 23724.85 \\
 f_1 &= 12,000 (1+0.028)^7 = 14559.05 \\
 f_1 &= 10,000 (1+0.028)^4 = 11167.79 \\
 f_1 &= 4,000 (1+0.028)^1 = 4112.00 \\
 \hline
 \text{TOTAL} &= 53,563.69
 \end{aligned}$$

$$\begin{aligned}
 &53,563.69 \\
 &- 21,893.38 \\
 \hline
 &31,670.31
 \end{aligned}$$

$$\begin{aligned}
 f_c &= 3,000 (1+0.028)^8 = 3741.67 \\
 f_c &= 5,000 (1+0.028)^5 = 5740.31 \\
 f_c &= 12,000 (1+0.028)^2 = 12,681.46 \\
 \hline
 \text{TOTAL} &= 21,893.38
 \end{aligned}$$

$$P = 21,000$$

$$n = 7$$

$$I = 4\%$$

$$4\% \div 100 = 0.04$$

FINAL
21000

	INTEREST	TOTAL	TOTAL AMOUNT
0			21,000
1	840	21,840	21,840
2	873.60	22,713.60	22,713.60
3	908.54	23,622.14	23,622.14
4	944.88	24,567.02	24,567.02
5	982.68	25,549.70	25,549.70
6	1021.98	26,571.68	26,571.68
7	1062.82	27,634.54	27,634.54

TOTAL 27,634.54

			21,000
0			
1	\$ 840	\$ 21,840	\$ 840
2	\$ 840	\$ 21,840	\$ 840
3	\$ 840	\$ 21,840	\$ 840
4	\$ 840	\$ 21,840	\$ 840
5	\$ 840	\$ 21,840	\$ 840
6	\$ 840	\$ 21,840	\$ 840
7	\$ 840	\$ 21,840	\$ 840

26880

			21,000
0			\$ 21,000
1	\$ 840	\$ 21,840	\$ 18,000
2	\$ 720	\$ 19,720	\$ 15,000
3	\$ 600	\$ 15,600	\$ 12,000
4	\$ 480	\$ 12,480	\$ 9,000
5	\$ 360	\$ 9,360	\$ 6,000
6	\$ 240	\$ 6,240	\$ 3,000
7	\$ 120	\$ 3,120	\$ 0

$$21,000 \div 7 = 3,000$$

$$P = 18,000$$

$$n = 6$$

$$I = 3.5\%$$

$$3.5\% \div 100 = 0.035$$

FINAL NO DE AÑO	INTERES	TOTAL	TOTAL A PAGAR
0			\$ 18,000
1	630	\$ 18,630	\$ 18,630
2	652.05	\$ 19,282.05	\$ 19,282.05
3	674.87	\$ 19,956.92	\$ 19,956.92
4	698.49	\$ 20,655.41	\$ 20,655.41
5	722.93	\$ 21,378.34	\$ 21,378.34
6	748.24	22,126.58	\$ 22,126.58

$$22,126.58$$

0			18,000	
1	\$ 630	\$ 18,630	\$ 630	}
2	\$ 630	\$ 18,630	\$ 630	
3	\$ 630	\$ 18,630	\$ 630	
4	\$ 630	\$ 18,630	\$ 630	
5	\$ 630	\$ 18,630	\$ 630	
6	\$ 630	\$ 18,630	\$ 630	
7				

$$21,780.00$$

0			\$ 18,000
1	\$ 630	\$ 18,630	\$ 15,000
2	\$ 525	\$ 15,525	\$ 12,000
3	\$ 420	\$ 12,420	\$ 9,000
4	\$ 315	\$ 9,315	\$ 6,000
5	\$ 210	\$ 6,210	\$ 3,000
6	\$ 105	\$ 3,105	\$ 0

$$18,000 \div 6 = 3,000$$