



**Nombre de alumno: Yessica Ibet
Vazquez Flores**

**Nombre del profesor: Jorge Enrique
Albores Aguilar**

**Nombre del trabajo: interés
compuesto**

Materia: Matemáticas financieras

PASIÓN POR EDUCAR

Grado: 3er Cuatrimestre

Grupo: LAN02SDC0121 A

$$P = \$50,000$$

$$1. - n = 12$$

$$i = 3.3\%$$

$$F = \frac{P}{(1+i)^n}$$

$$i = 3.3\%$$

$$F = ?$$

50,000

$$F = 50,000 (1 + 0.033)^{12}$$

$$F = 50,000 (1.4763)$$

$$F = \underline{73,819.96}$$

$$P = 35,000$$

$$2. - n = 10$$

$$i = 2.2\%$$

$$i = 2.2\%$$

$$F = ?$$

35,000

$$F = 35,000 (1 + 0.022)^{10}$$

$$F = \underline{43,508.78}$$

$$3. - P = 12,500$$

$$n = 15$$

$$i = 2.5\%$$

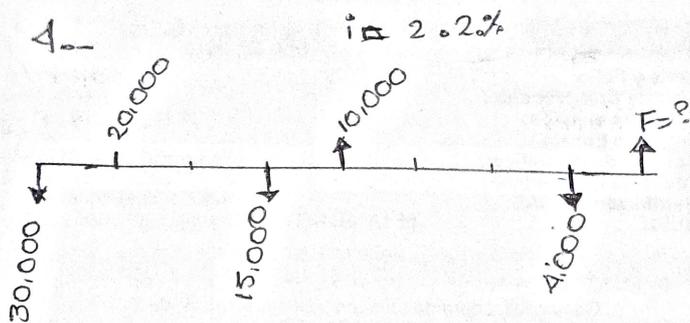
$$i = 2.5\%$$

$$F = ?$$

12,500

$$F = 12,500 (1 + 0.025)^{15}$$

$$F = \underline{18,103.72}$$



F de ingresos

$$F_1 = 30,000 (1 + 0.022)^8 = 35,704.94$$

$$F_2 = 15,000 (1 + 0.022)^5 = 16,724.21$$

$$F_3 = 4,000 (1 + 0.022)^1 = 4,088$$

$$FT \text{ ingresos } 56,517.15$$

F de egresos.

$$F_1 = 20,000 (1 + 0.22)^7 = 23,290.89$$

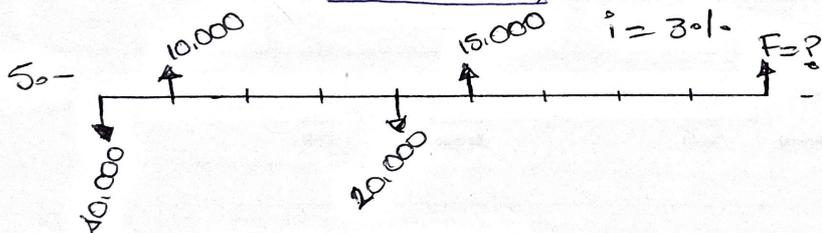
$$F_2 = 10,000 (1 + 0.22)^4 = 10,909.46$$

$$FT \text{ egresos } 34,200.35$$

$$FT = F \text{ ingresos} - F \text{ egresos}$$

$$FT = 56,517.15 - 34,200.35$$

$$FT = 22,316.8$$



F de ingresos

$$F_1 = 40,000 (1 + 0.03)^9 = 52,190.92$$

$$F_2 = 20,000 (1 + 0.03)^5 = 23,485.48$$

$$FT \text{ ingresos } 75,376.4$$

F de egresos

$$F_1 = 10,000 (1 + 0.03)^8 = 12,667.70$$

$$F_2 = 15,000 (1 + 0.03)^4 = 16,882.63$$

$$FT \text{ egresos } 29,550.33$$

$$FT = 75,376.40 - 29,550.33$$

$$FT = 45,826.07$$

6. - \$21,000

$n=7$

$i=3.2\%$

Plan 1 pago al final

$i=0.032$

Final del año	Interés que se adeuda al año	Total que se adeuda al final del año	Pago al final del año	Total que se adeuda después del pago
0	-	-	-	\$21,000
1	672	21,672	-	\$21,672
2	693.504	22,365.50	-	\$22,365.50
3	715.696	23,081.19	-	\$23,081.19
4	738.59	23,819.78	-	23,819.78
5	762.23	24,582.01	-	24,582.01
6	786.62	25,368.63	-	25,368.63
7	811.79	26,180.42	\$26,180.42	φ
			<u>26,180.42</u>	

Plan 2 pago anual de intereses.

0	-	-	-	\$21,000
1	672	21,672	- \$ 672	21,000
2	672	21,672	- 672	21,000
3	672	21,672	- 672	21,000
4	672	21,672	- 672	21,000
5	672	21,672	- 672	21,000
6	672	21,672	- 672	21,000
7	672	21,672	- 21,672	
			<u>25,704</u>	

Plan 3 pago anual de intereses y una parte del principal

0	-	-	-	\$21,000.
1	672	21,672	- \$ 3,672	18,000
2	576	18,576	- 3,576	15,000
3	480	15,480	- 3,480	12,000
4	384	12,384	- 3,384	9,000
5	288	9,288	- 3,288	6,000
6	192	6,192	- 3,192	3,000
7	96	3,096	- 3,096	
			<u>23,688</u>	

$$F = \$18,000$$

$$n = 6$$

$$i = 2.4\%$$

$$i = 0.024$$

Plan 1

Final del año	Interes que se adeuda para el año	Total que se adeuda al final del año	Pago al final del año	Total que se adeuda después del pago.
0	—	—	—	\$18,000
1	\$ 432	\$18,432	—	\$18,432
2	442.36	18,874.36	—	\$18,874.36
3	452.98	19,327.34	—	19,327.34
4	463.85	19,791.19	—	19,791.19
5	474.98	20,266.17	—	20,266.17
6	486.38	20,752.55	—	20,752.55

$-\$20752.55$
20,752.55

Plan 2

0	—	—	—	\$18,000
1	\$ 432	\$18,432	\$ -432	18,000
2	432	18,432	-432	18,000
3	432	18,432	-432	18,000
4	432	18,432	-432	18,000
5	432	18,432	-432	18,000
6	432	18,432	-432	18,000

-18432
20,592

Plan 3

0	—	—	—	\$18,000
1	\$ 432	\$18,432	-\$3432	15,000
2	360	15,360	-3,360	12,000
3	288	12,288	-3,288	9,000
4	216	9,216	-3,216	6,000
5	144	6,144	-3,144	3,000
6	72	3,072	-3,072	—

-3072
19,512