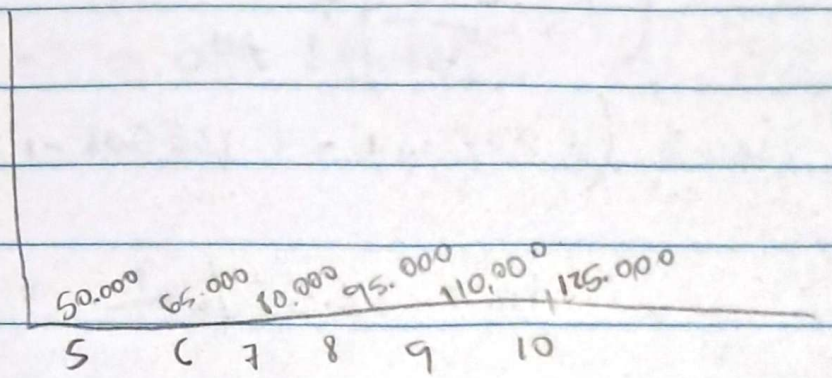
Parcial #2

(1)

i = 14%

n = 10 Años



$$P = \sum_{t=5}^{10} \frac{Ct}{(1.14)^t} = 50{,}000\frac{1}{(1.14)^5} + 65{,}000\frac{1}{(1.14)^6} + 125000\frac{1}{(1.14)^{10}}$$

$$= \$188{,}407.11$$

$$A = P \cdot \frac{i(1+i)^n}{(1+i)^n - 1} \quad \text{Con } i = 0.14,\ n = 10$$

$$A = 188.400 \quad \frac{0.14(1.14)^{10}}{(1.14)^{10}-1} = 36{,}119.5$$

$P = \$187.407.11$ $A = \$36{,}119.53$

(4) Encuentre P, tasa de interes real

Interes = 12% Anual Compuesto trimestral

$$i_a = \left(1 + \frac{0.12}{4}\right)^4 - 1$$

$$i_a = (1.03)^4 - 1 = 1.125508 - 1 = 0.1255$$

$$i_a = 12.55\%$$

(6) Problema

$A_1 = 4{,}500$

$G = 500$

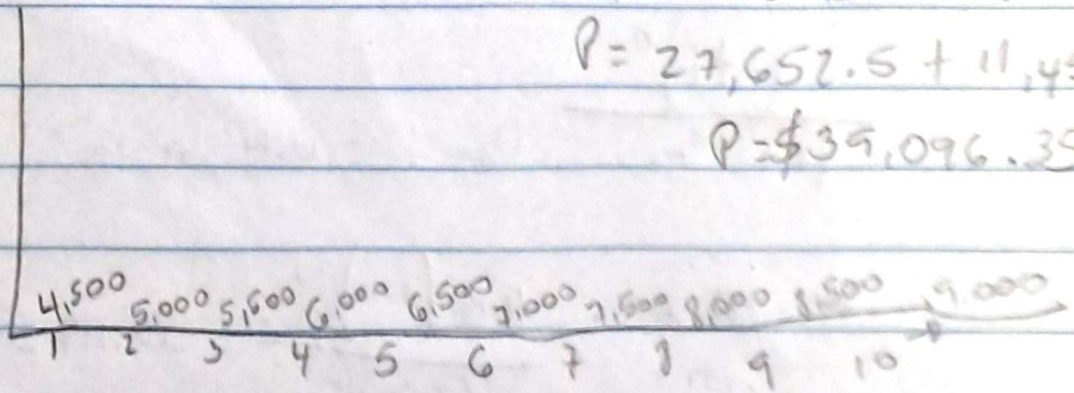
$n = 10$

$10\% = 0.10$

$P = 4500 \cdot 6.145 + 500 \cdot 22.9$

$P = 27{,}652.5 + 11{,}450$

$P = \$39{,}096.35$



$PV = \$39{,}096.35$

(11) $i = \frac{r}{m}$

$i = \frac{0.24}{12} = 0.02$

$i = 2.0\%$ Mensual

(12) $i = \frac{r}{m}$

$i = \frac{0.16}{12} = 0.0133$

$i = 1.33\%$ Mensual

(13) $i_a = \left(1 + \frac{r}{m}\right)^m - 1$

$i_a = \left(1 + \frac{0.105}{3}\right)^3 - 1$

$i_a = (1 + 0.035)^3 - 1$

$i_a = 1.1087 - 1 = 0.1087$

$i_a = 10.87\%$ Anual

(14) $A_1 = 120.000$

$A_{17} = 500.000$

$n = 17$

$$500,000 = 120,000 + (17-1) \cdot 5$$

$$500,000 = 120,000 + 16 5$$

$$16 5 = 380,000$$

$$5 = \frac{380,000}{16} = \$23,750$$

(15) $i_{sem} = \frac{0.24}{52}$

$i_{tri} = (1 + i_{sem})^{13} - 1 = (1.004615)^{13} - 1 = 6.1\%$

(16) $i = \frac{r}{m}$

$$i = \frac{0.10}{4} = 0.025$$

$i = 2.5\%$ trimestral

17 $1 + r/4 = (1.15)^{1/4}$

$(1.15)^{1/4} = 1.03555$

$r/4 = 0.03555$

$r = 4(0.03555) = 0.1422 = 14.22\%$

18 $i = \frac{r}{m}$

$i = \frac{0.15}{52} = 0.0021846$

$I = 0.29\%$ Semanal

19 $r = 16\%$

$i_a = \left(1 + \frac{0.16}{12}\right)^{12} - 1 = (1.013333)^{12} - 1 = 17.23\%$

$F = 875 \cdot \left(1 + \frac{0.16}{12}\right)^{24} = 875 \cdot (1.013333)^{24} = 875 \cdot 1.374$

$= 1,202.50$

20 $i = 15\%$

$n = 10$

$PT = \$74,109.40$

$At = PT \cdot (A/P, 15\%, 10)$

$= 74,109.40 \times 0.19925 = \$14.7$

$PT = \$74,109.40 AT$

$= \$14,766.30$