Nombre de alumno: Emanuel de Jesús Samayoa Hernández.

Nombre del profesor: Ing. Jorge Enrique Albores

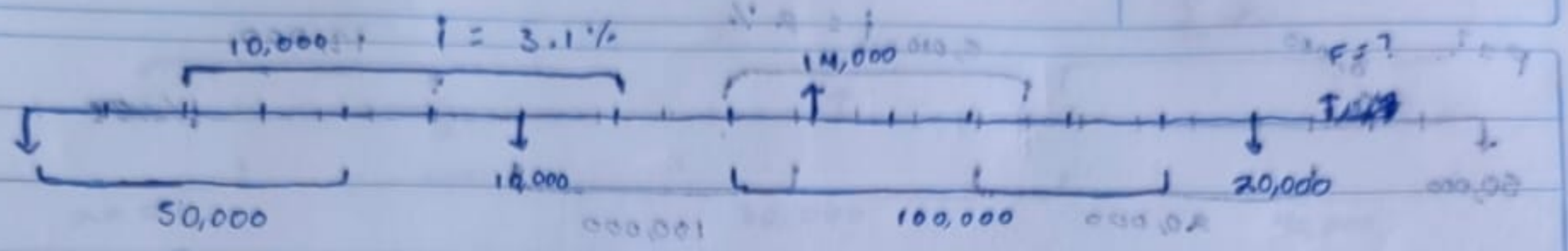
Nombre del trabajo: U3. T1

Materia: Matemáticas financieras.

Grado: 3er cuatrimestre.

Grupo: A

Comitán de Domínguez Chiapas a 10 de julio de 2022



$$F = A\left[\frac{(1+i)^n - 1}{i}\right](1+i)^n =$$

$$F_{i1} = 50{,}000\left[\frac{(1.031)^5 - 1}{0.031}\right](1.031)^{10} =$$

$F_{i1} = 372{,}140.85$

$F_{i2} = 10{,}000\,(1.031)^9 = 13{,}162.18$

$$F_{i3} = A\left[\frac{(1+i)^n - 1}{i}\right](1+i)^n =$$

$$F_{i3} = 100{,}000\left[\frac{(1.031)^6 - 1}{0.031}\right](1.031)^2$$

$F_{i3} = 689{,}295.38$

$F_{iM} = 20{,}000\,(1.031)^1 = 20{,}620$

$F_i = 1{,}145{,}218.41$

$F_T = 995{,}617.49$

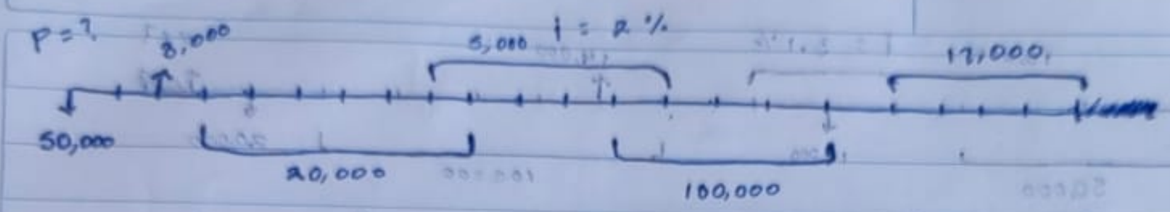
$$F_{e1} = A\left[\frac{(1+i)^n - 1}{i}\right](1+i)^n$$

$$F_{e1} = 10{,}000\left[\frac{(1.031)^6 - 1}{0.031}\right](1.031)^8$$

$F_{e1} = 82{,}786.08$

$F_{e2} = 14{,}000\,(1.031)^6 = 16{,}814.34$

$F_e = 99{,}600.42$



$P_{i1} = 50{,}000$

$P_{i2} = A\left[\frac{1-(1+i)^{-n}}{i}\right]\left(\frac{1}{(1+i)^n}\right)$

$P_{i2} = 20{,}000\left[\frac{1-(1.020)^{-9}}{0.020}\right]\left(\frac{1}{(1.020)^2}\right)$

$P_{i2} = 174{,}413.51$

$P_{i3} = A\left[\frac{1-(1+i)^{-n}}{i}\right]\left(\frac{1}{(1+i)^n}\right)$

$P_{i3} = 100{,}000\left[\frac{1-(1.020)^{-5}}{0.020}\right]\left(\frac{1}{(1.020)^{11}}\right)$

$P_{i3} = 379{,}086.12$

$P_i = 553{,}499.63$

$P_{E1} = \frac{F}{(1+i)^n} =$

$P_{E1} = \frac{3000}{(1.020)^2} = 2{,}883.50$

$P_{E2} = A\left[\frac{1-(1+i)^{-n}}{i}\right]\left(\frac{1}{(1+i)^n}\right)$

$P_{E2} = 5000\left[\frac{1-(1.020)^{-6}}{0.020}\right]\left(\frac{1}{(1.020)^7}\right)$

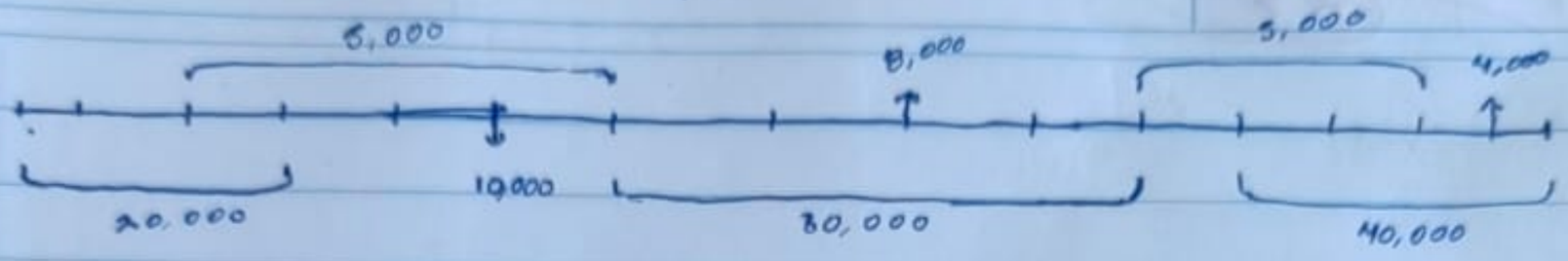
$P_{E2} = 21{,}225.92$

$P_{E3} = A\left[\frac{1-(1+i)^{-n}}{i}\right]\left(\frac{1}{(1+i)^n}\right)$

$P_{E3} = 12{,}000\left[\frac{1-(1.020)^{-5}}{0.020}\right]\left(\frac{1}{(1.020)^{16}}\right)$ $P_{E3} = 41{,}201.99$

$P_{Tot} = 488{,}188.22$

$i = 2.2\%$



$P = ?$

$P = A\left[\frac{1-(1+i)^{-n}}{i}\right]\left(\frac{1}{(1+i)^n}\right)$ ó $P = \frac{F}{(1+i)^n}$

$P_{i1} = 20{,}000\left[\frac{1-(1.022)^{-3}}{0.022}\right]$

$P_{i1} = 57{,}453.90$

$P_{i2} = 20{,}000$

$P_{i2} = 30{,}000\left[\frac{1-(1.022)^{-5}}{0.022}\right]\left(\frac{1}{(1.022)^5}\right)$

$P_{i2} = 136{,}092.63$

$P_{i4} = 40{,}000\left[\frac{1-(1.022)^{-5}}{0.022}\right]\left(\frac{1}{(1.022)^{10}}\right)$

$P_{i4} = 150{,}790.30$

$P_{iT} = 354{,}336.83$

$P_{eT} = 48{,}174.58$

$P_{Tot} = 306{,}162.25$

$P_{e1} = 5{,}000\left[\frac{1-(1.022)^{-5}}{0.022}\right]\left(\frac{1}{(1.022)^1}\right)$

$P_{e1} = 22{,}926.72$

$P_{e2} = \frac{8{,}000}{(1.022)^8} = 6{,}721.75$

$P_{e3} = 5{,}000\left[\frac{1-(1.022)^{-4}}{0.022}\right]\left(\frac{1}{(1.022)^9}\right)$

$P_{e3} = 15{,}576.62$

$P_{e4} = \frac{4{,}000}{(1.022)^{14}} = 2{,}949.44$