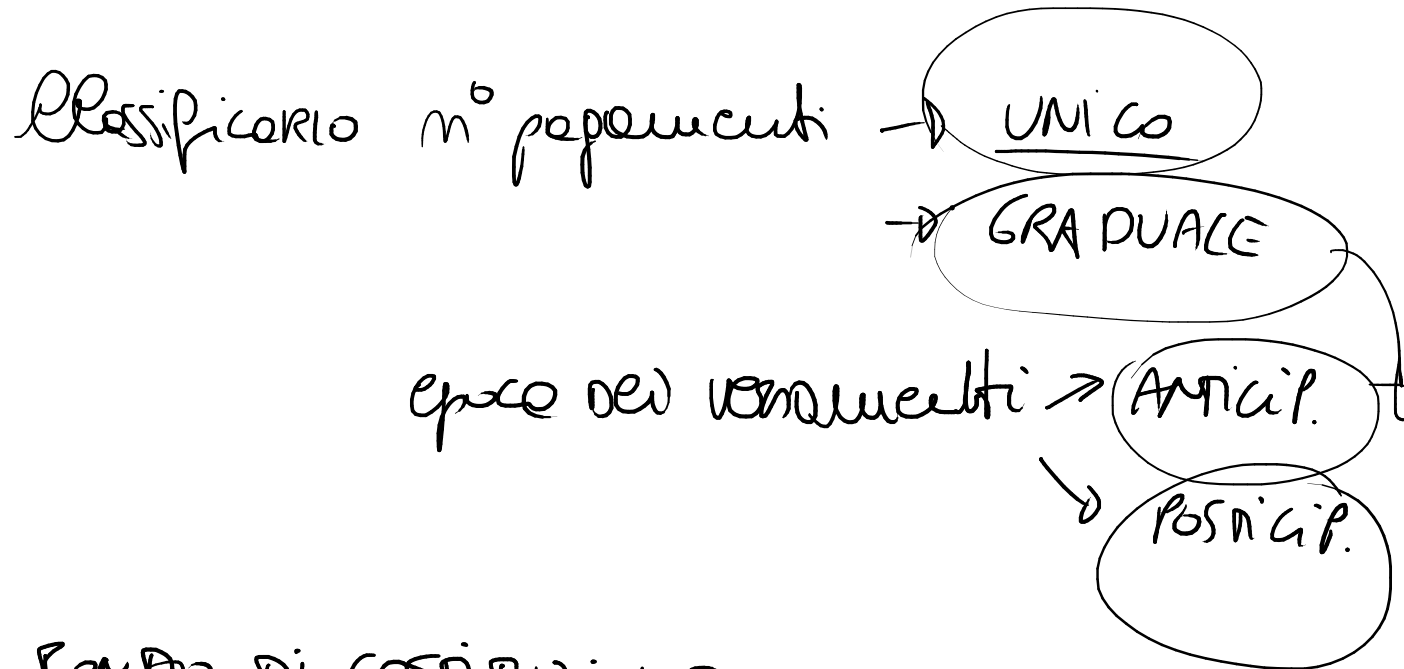


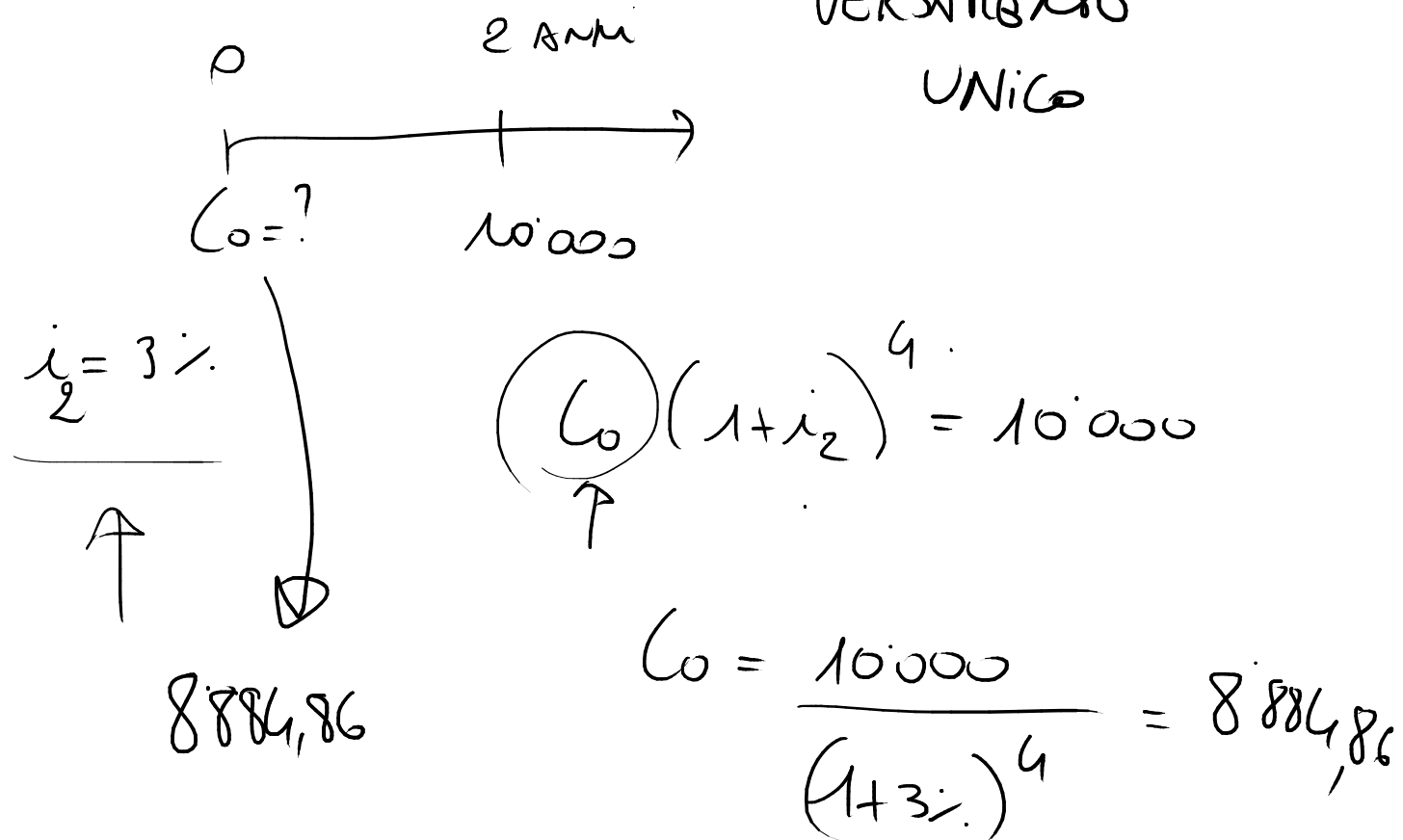
# COSTITUZIONE DI UN CAPITALE



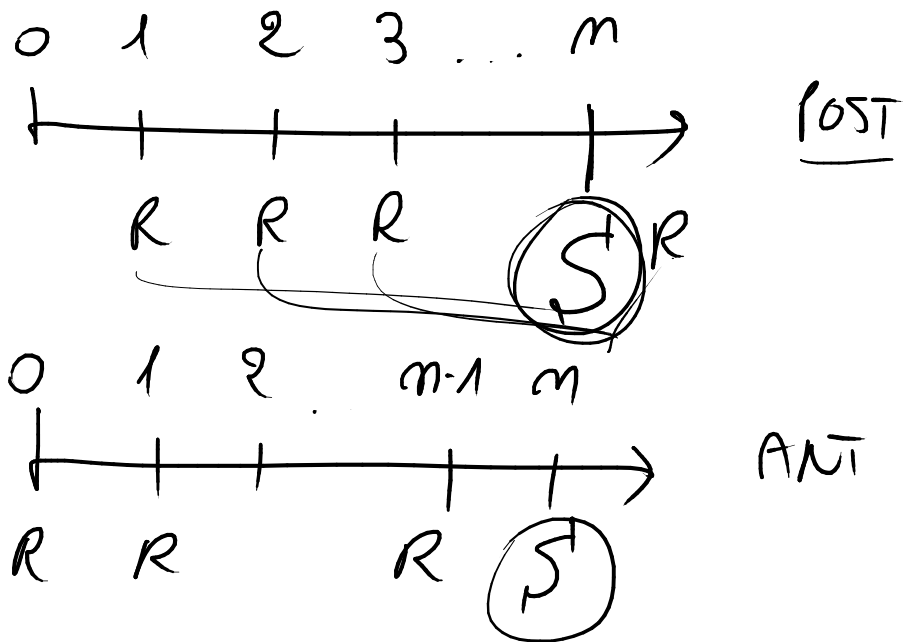
FONDO DI COSTITUZIONE

ESERCIZI

VERSAMENTO  
UNICO



# VERSAMENTO GRADUALE :



$$\boxed{S = R \cdot s_{\overline{m}|i}} \quad (\text{POST}) \qquad S = R \cdot \dot{s}_{\overline{m}|i} \cdot (1+i) \quad (\text{ANTI})$$

$\uparrow$   $\uparrow$

$$S = R \cdot \Delta m_i \quad R = \frac{S}{\Delta m_i} = S \cdot \frac{1}{\Delta m_i}$$

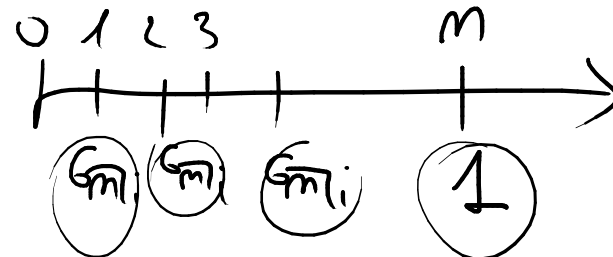
$$G_{mi} = \frac{1}{\Delta m_i}$$

$G_{mi}$  = RATA COSTANTE che utilizzo x costituire

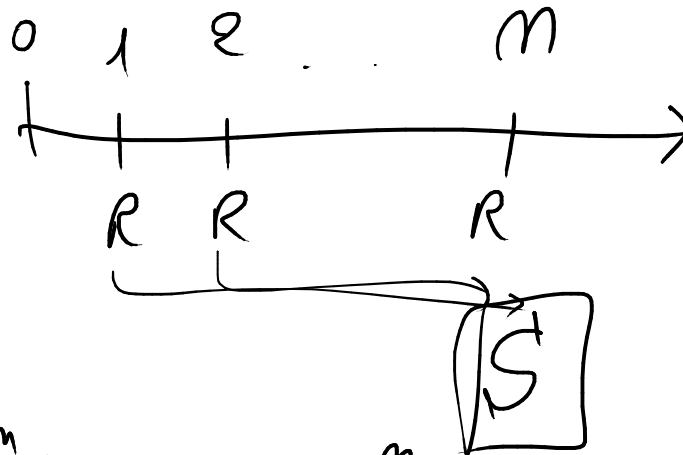
Dopo m versamenti al tempo  $t$  UN CAPITALE

UNITARIO

$G_{mi} \uparrow \text{ e } \downarrow$



$$\lambda = 0$$



$$S = \sum_{k=1}^m R (1+i)^k = \sum_{k=1}^m R = (m) R$$

$$G_m i = \frac{1}{m}$$

EX: COSTITUIRE in 10 ANNI  $C=1000$

$$i_A = 12\%$$

$$\underline{\text{POST}} = 56,98$$

$$\frac{56,98}{1,12} = 50,89$$

$$\underline{\text{ANT}} = 50,89$$

POST:

$$1000 = R \cdot \underset{\substack{\uparrow \\ 10}}{\overset{\text{mi}}{\Delta}} \rightarrow 0,12$$

$$R = 1000 \cdot \underset{\substack{\downarrow \\ 10}}{\overset{\text{mi}}{\ominus}} \rightarrow 0,12$$

$$R = 1000 \cdot \frac{0,12}{(1+0,12)^{10} - 1} =$$

ANT :

$$1000 = R \cdot \overset{\ddot{s}_{\overline{10}|0,12}}{\underbrace{\frac{1 - (1+0,12)^{-10}}{0,12}}_{\text{}}} \cdot (1+0,12)$$

$$R = 1000 \cdot \overset{\ddot{G}_{\overline{10}|0,12}}{\frac{0,12}{(1+0,12)^{10} - 1}} \cdot \frac{1}{1+0,12}$$

$$R = 1000 \cdot \frac{0,12}{(1+0,12)^{10} - 1} \cdot \frac{1}{1+0,12}$$

$$\overset{\ddot{G}_{\overline{m}|i}}{\frac{1}{s_{\overline{m}|i}(1+i)}}$$

$$\overset{\ddot{G}_{\overline{m}|i}}{\ddot{s}_{\overline{m}|i}}$$

$$R = 50,89$$

$$R_{\text{ANT}} = R_{\text{POST}} / (1+i)$$

ex:  $J_2 = 12\% \rightarrow i_2 = \frac{12\%}{2} = 6\%$

$1000 = R \cdot \overline{s}_{20|6\%}$

ex:  $i_3$  RATA numerhole

$\hookrightarrow (1+i_3)^3 = (1+i_2)^2$

ex:  $J_{12}$  RATA numerhole  $i_{12} = \frac{J_{12}}{12}$   
 $(1+i_{12})^{12} = (1+i_2)^2$



FONDO DI COSTRUZIONE :

montate rate versate fino a epoca  $t$  :

1)  $t = \text{intero} = k$

2)  $t = \text{intero} = k$   
 $+ \text{frazione} = f$  }  $t = k + f$

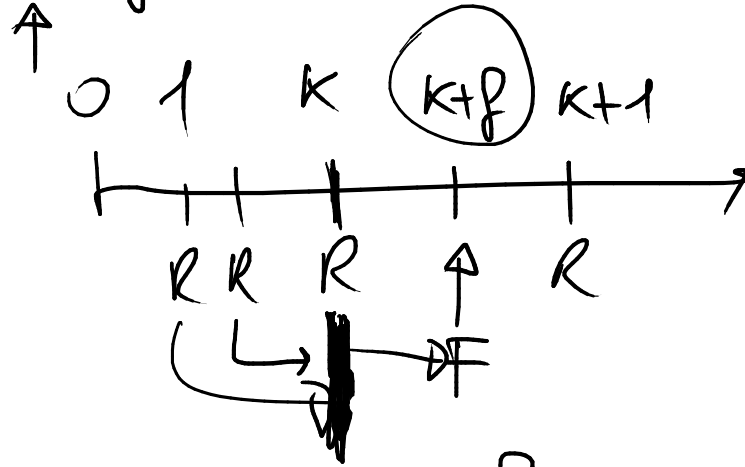
CONVENZIONE  
esp.  
CONVENZIONE  
lineare

1)  $t = k$

$$F_t = R \cdot s_{\overline{k}|i}$$



$$2) t = k + f$$



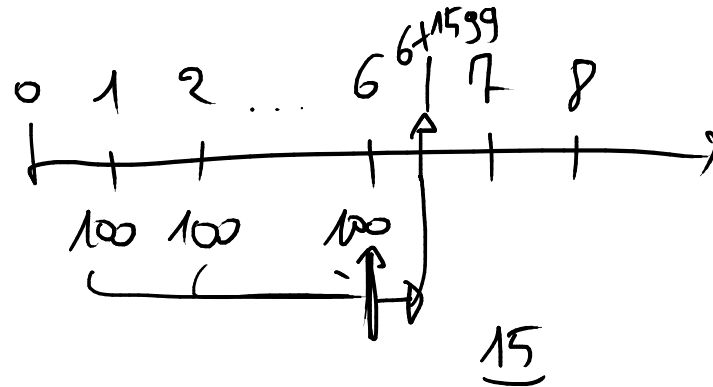
$$F_t = R \cdot \delta_{k|t} (1+i)^f \quad \text{e.E.}$$

$$F_t = R \cdot \delta_{k|t} (1+i \cdot f) \quad \text{e.L.}$$

ex: FONDO DI RESTITUZIONE DOPO 6 VERSAMENTI

PRELIEVI POSTICIPATI 100€

TASSO  $i_{12} = 1\%$ . EPOCA: 6m 15gg = t



$$F = 100 \cdot s_{\overline{6}|1\%} \cdot (1 + 9\%)^{\overline{15}} \quad e.E$$

$$F = 100 \cdot s_{\overline{6}|1\%} \cdot \left(1 + 9\% \cdot \frac{15}{30}\right) \quad e.L.$$

$$F = 100 \cdot \frac{(1+0,01)^6 - 1}{0,01} (1+0,01)^{\frac{1}{2}} \text{ e.E}$$

$$F = \underline{615,21} \text{ R}$$

$$F = 100 \cdot \frac{(1+0,01)^6 - 1}{0,01} (1+0,01 \cdot \frac{1}{2}) \text{ e.L.}$$

$$F = 618,28 \uparrow$$

ESERCIZI :

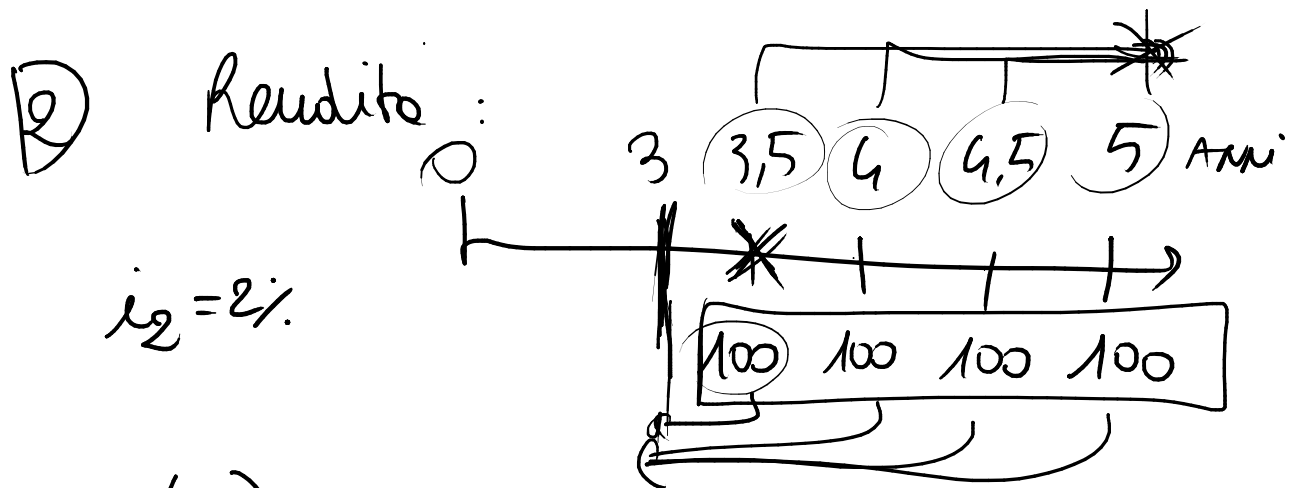
1) affitto canone mensile = 600 €

$$j_{12} = 3,6\% \quad i_{12} = \frac{3,6\%}{12} = 0,3\%$$

valore appartamento :

$$V.A. = \frac{600}{0,3\%} (1 + 0,3\%)^{0,003} = \underline{200.600 \text{ €}}$$

$$j_A = (1 + 0,3\%)^{12} - 1 = 3,66\%$$

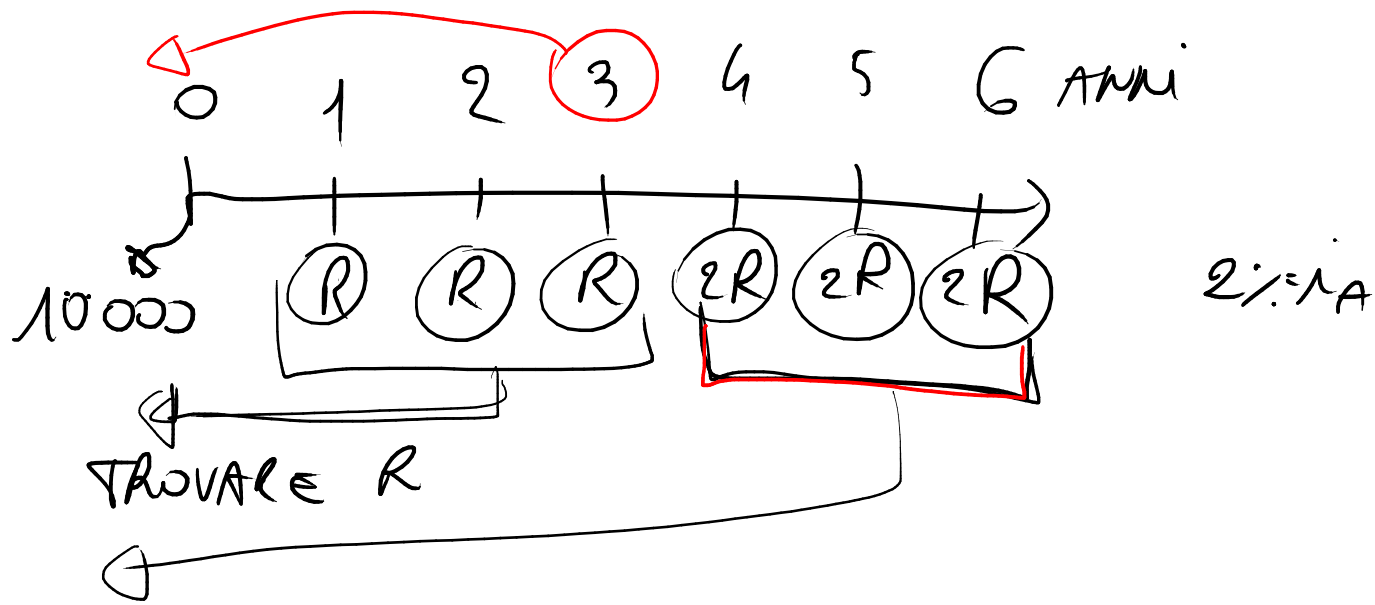


$$\underline{V(3)} = 100 \cdot a_{\overline{4}|2\%} = 100 \cdot \frac{1 - (1 + 2\%)^{-4}}{2\%} = \underline{380,77}$$

$$\begin{aligned} V(5) &= 380,77 (1 + 0,02)^4 = 100 \cdot s_{\overline{4}|2\%} = \\ &= 100 \cdot \frac{(1 + 0,02)^4 - 1}{0,02} = \underline{412,16} \end{aligned}$$

$$V(0) = 612,5 (1+2\%)^{-10} = 380,177 (1+2\%)^{-6}$$

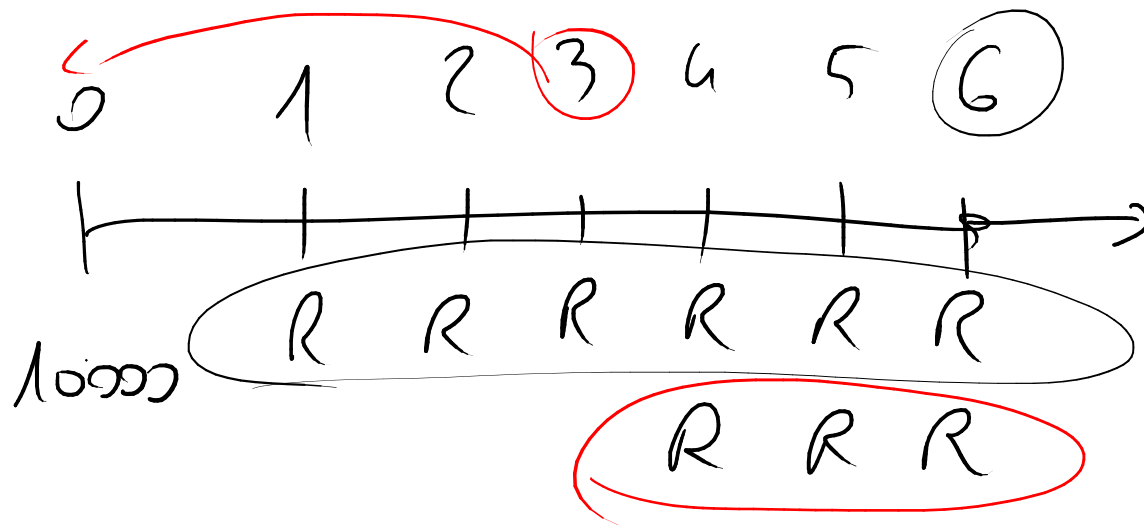
$$= \underbrace{100 \cdot \ddot{a}_{\overline{10}|2\%}}_{\text{value in 3,5}} (1+2\%)^{-7}$$



$$10000 = R \cdot a_{\overline{3}|2\%} + 2R \cdot a_{\overline{3}|2\%} (1+2\%)^{-3}$$

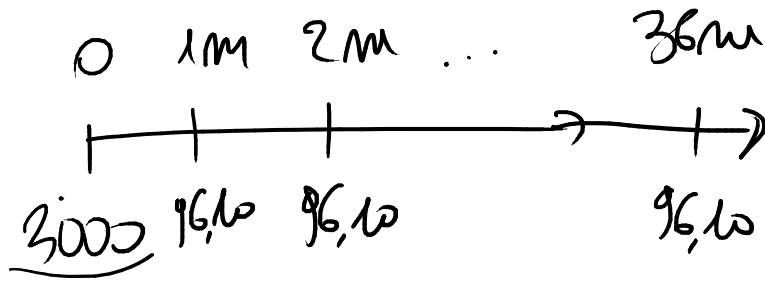
$$10000 = R \cdot \frac{1 - (1+0,02)^{-3}}{0,02} + 2R \cdot \frac{1 - (1+0,02)^{-3}}{0,02} (1+0,02)^{-3}$$





$$10000 = R a_{\overline{6}|2i} + R a_{\overline{3}|2i} (1+i)^{-3}$$

$$R = 1702,07$$



RATE mensili  
96,10€

### Finanziamenti Viaggi e Vacanze

Il prestito Viaggi e Vacanze ti offre una somma di denaro utile per concederti una vacanza da solo o con la tua famiglia.

**3.000 €**  
36 rate base da  
**96,10 €/mese**  
Importo totale dovuto  
dal consumatore: 3.459,60 €

**9,50%**  
Tan fisso  
**9,92%**  
Taeg fisso

$$3000 = 96,10 \cdot a_{\overline{36}|i_{12}}$$

R

$$\underline{3.459,60} = 96,10 \times 36$$

$$3000 = 96,10 \cdot e^{36 i_{12}}$$

$$\underline{3000} = 96,10 \cdot \frac{1 - (1 + i_{12})^{-36}}{i_{12}}$$

$$i_{12} \leftarrow 0,00791$$

$$(1 + 9,92\%) = (1 + i_{12})^{12}$$

$$i_{12} = \sqrt[12]{1 + 9,92\%} - 1 \quad i_{12} = 0,791\%$$