111. 10000 $t=2^a$ $J_3=12\%$ $R=?$

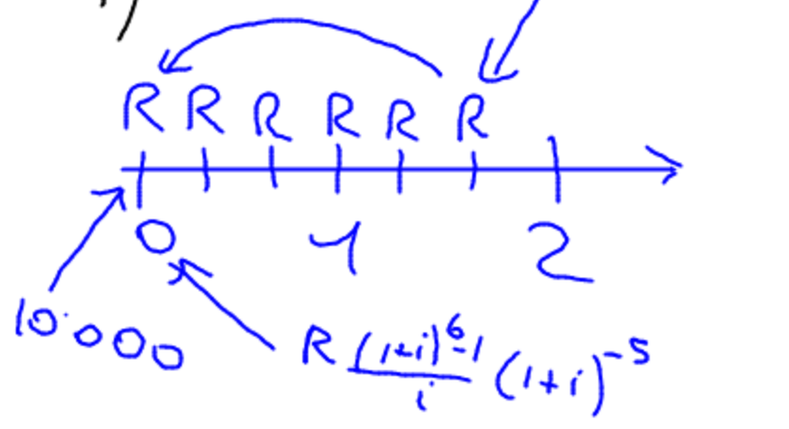
rate quadrimestrali

$$J_3=\frac{JK}{K}=\frac{0,12}{3}=0,04$$

$$10000=R\cdot\frac{(1,04)^6-1}{0,04}\cdot(1,04)^{-5}$$

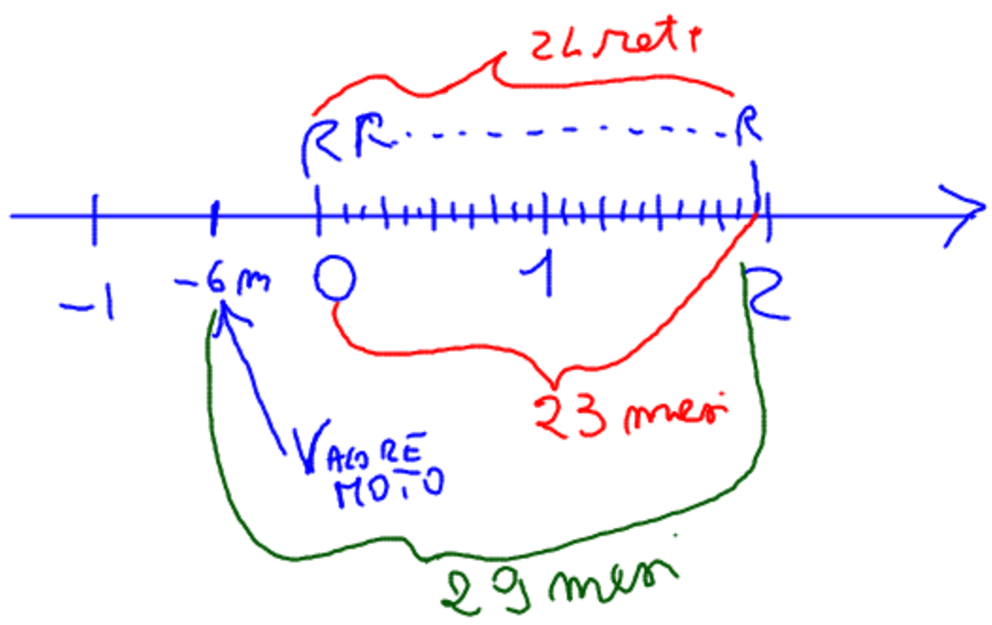
$$10000=5,451822\cdot R$$

$$R=\frac{10000}{5,451822}\Rightarrow R=1834,25$$



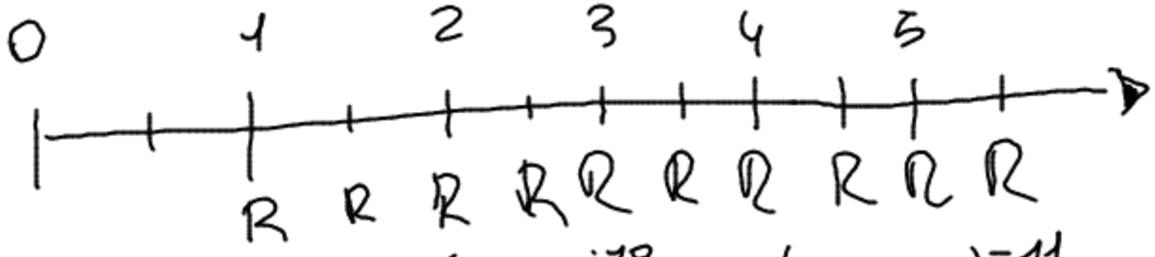
102. 24 Rate mensili anticipate $R=350$ $J_{12}=0,09$

$$i_{12}=\frac{JK}{K}=\frac{0,09}{12}=0,0075$$



$$\text{Valore moto}=350\cdot\frac{(1,0075)^{24}-1}{0,0075}\cdot(1,0075)^{-29}=7380,25$$

115: 40.000 10 RATE SEMES. $J_2 = 9\%$

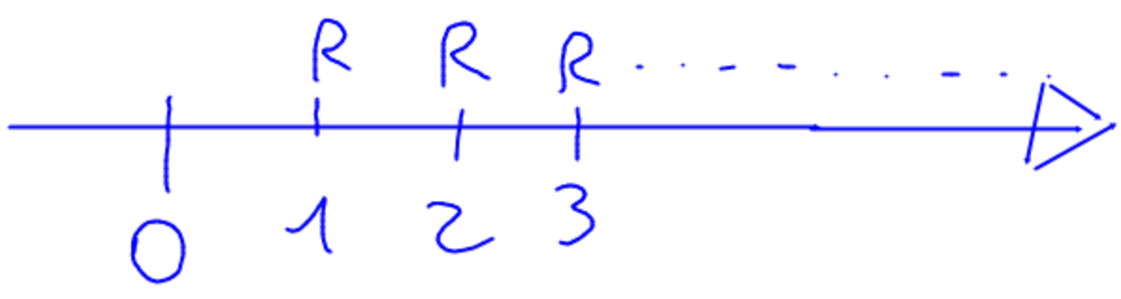


$I_2 = \frac{J_4}{2} = \frac{0{,}09}{2} = 0{,}045$

$$40.000 = R \cdot \frac{(1{,}045)^{10} - 1}{0{,}045} \cdot (1{,}045)^{-11}$$

$$40.000 = R \cdot (7{,}57197)$$

$$R = \frac{40000}{7{,}57197} = 5282{,}63$$



INFINITE RATE

V.A. di una rendita PERPETUA

$$R\,\frac{1-\boxed{(1+i)^{-n}}}{i} \longleftarrow n \to \infty$$

questo termine diventa 0 se n è ∞

$$V.A. = \frac{R}{i}$$

$(1,02)^{-100} = 0,138\ldots$

$(1,02)^{-1000} = 0,000000002$

$(1,02)^{-10000} = 5,96 \cdot 10^{-87}$

$0,000\ldots\ldots 00596$ (86 zeri)

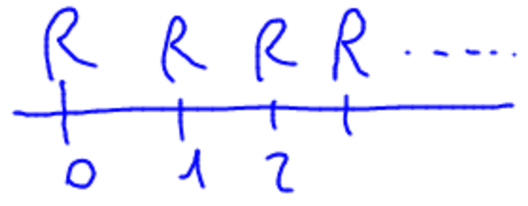
sono 87 zeri se si comprende anche quello prima della virgola

$R = 100$

$i = 0,02$

rendita posticipata se inizia oggi, la prima rata scade alla fine dell'anno (anno 1)

$$V.A = \frac{100}{0,02} = 5000$$



rendita anticipata che inizia oggi (prima rata anno 0)

oppure $V.A = \frac{R}{i}(1+i) = \frac{100}{0,02}(1,02$

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