Suggerimento per corso a scelta terzo anno:
Modelli e Metodi per l'Economia e la Finanza

$$V \quad R \quad R \quad R \quad \cdots \quad R$$
$$|\underset{0}{\quad}|\underset{1}{\quad}|\underset{2}{\quad}|\underset{3}{\quad}|\underset{-\cdots}{\quad}|\underset{n}{\quad}|$$
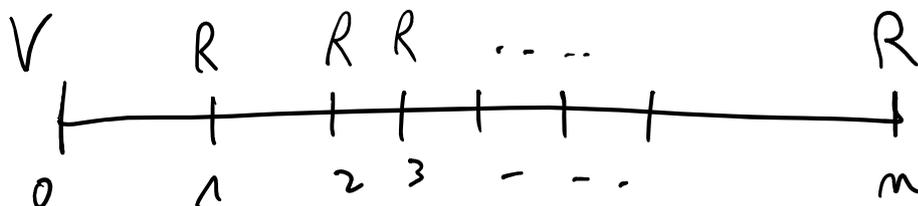
$$V = R \cdot \boxed{\frac{1}{1+i}} + R \cdot \frac{1}{(1+i)^2} + R \cdot \frac{1}{(1+i)^3} + \cdots R \cdot \frac{1}{(1+i)^n}$$

$$\searrow q$$

$$V = R \cdot q + R \cdot q^2 + R \cdot q^3 + \cdots + R \cdot q^n$$

$$Vq = R \cdot q^2 + R \cdot q^3 + R \cdot q^4 + \cdots + R \cdot q^{n+1}$$

SOTTRAGGO

$$V - Vq = Rq - Rq^2 + Rq^2 - Rq^3 + Rq^3 - Rq^4 + \cdots + Rq^n - Rq^{n+1}$$

$$V - Vq = Rq - Rq^{n+1}$$

$$V(1-q) = Rq \cdot (1 - q^n)$$

$$V = Rq \cdot \frac{1 - q^n}{1 - q} \qquad q = \frac{1}{1+i}$$

$$V = R \cdot q \cdot \frac{\cdot}{1-q} \qquad q = \frac{}{1+i}$$

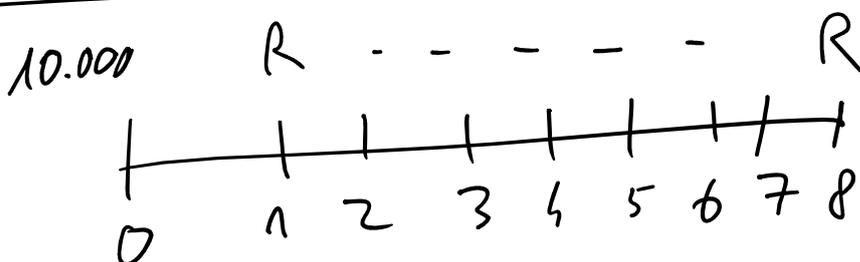$$V = R \cdot \frac{1}{1+i} \cdot \frac{1-\left(\frac{1}{1+i}\right)^{n}}{1-\frac{1}{1+i}}$$

$$V = R \cdot \frac{1}{1+i} \cdot \frac{1-(1+i)^{-n}}{\frac{1+i-1}{1+i}}$$
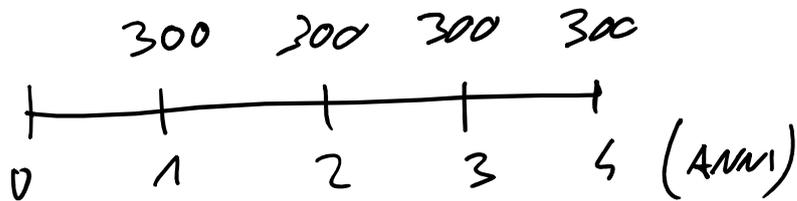
$$V = R \cdot \frac{1-(1+i)^{-n}}{i}$$

$$i = 5\% \quad \text{ANNUO} \qquad ? = V$$

$$V = 300 \cdot \frac{1-(1+0.05)^{-4}}{0.05}$$

$$1 \quad \overset{1}{\underset{0}{}} \quad \overset{.}{1} \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8$$

$$i = 3\% \qquad m = 8 \qquad R = ?$$

$$10.000 = R \cdot \boxed{\frac{1-(1+0.03)^{-8}}{0.03}}$$

POST. TEMP $\qquad V = R \cdot \left(\dfrac{1-(1+i)^{-m}}{i} \right) \quad \underset{m\to\infty}{\lim}$ ①

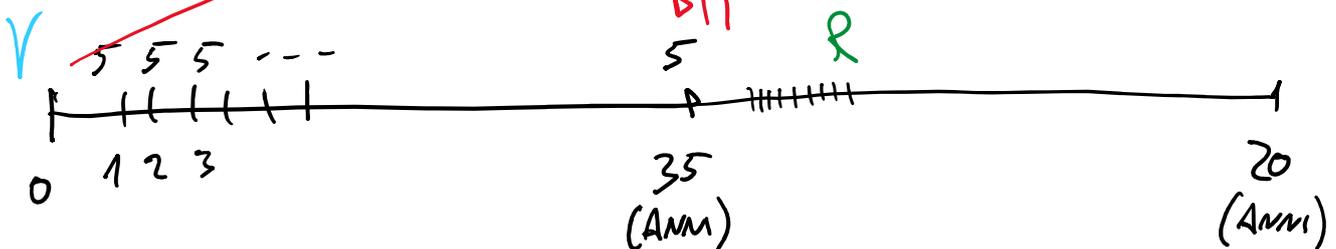POST ILLIMITATA $\qquad V = R \cdot \dfrac{1}{i}$
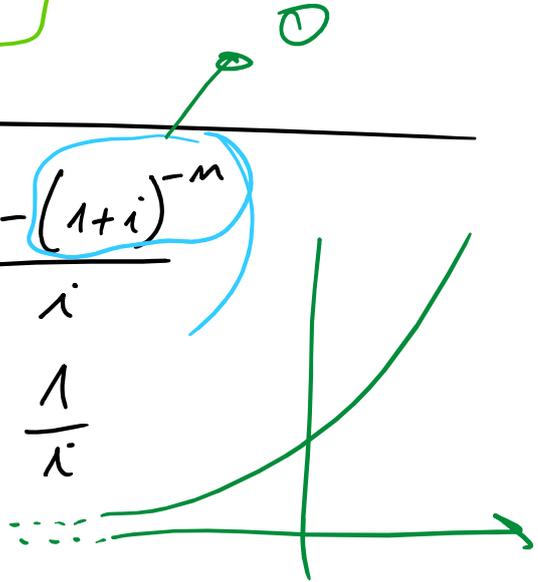
TIZIO VERSA 5000€/ANNO

POSTICIPATI PER 35 ANNI

SE MI ASPETTO DI VIVERE 20 ANNI

IN PENSIONE, QUAL'È LA PENSIONE MENSILE

(POSTICIPATA)? $\qquad i = 2\%$ ANNO

$$V = \frac{1-(1+0.02)^{-35}}{}$$

$$V = 5000 \cdot \frac{1-(1+0.02)^{-35}}{0.02} = 124993 \, €$$

$$\Pi = 124993 \cdot (1+0.02)^{35} = 249972 \, €$$

$$249972 = R \cdot \frac{1-(1+0.001652)^{-240}}{0.001652} \qquad R = 1262 \, €$$

$$(1+0.02)^1 = (1+i^*)^{12}$$

$$i^* = \sqrt[12]{1.02^1} - 1 = 0,1652 \, \%$$