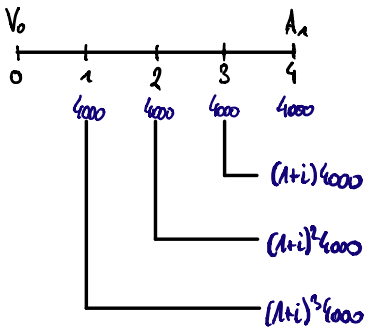
$i = 6\%$



$$A_1 = 4000 + (1+i)4000 + (1+i)^2 4000 + (1+i)^3 4000$$

$$= 4000\underbrace{\left[1 + (1+i) + (1+i)^2 + (1+i)^3\right]}_{S = \frac{1q-a}{q-1} = \frac{(1+i)^3(1+i)-1}{(1+i)-1} = \frac{(1+i)^4-1}{i}}$$

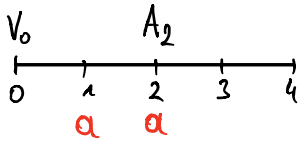
$$A_1 = 4000\,\frac{(1+i)^4-1}{i}$$

$$V_0 = (1+i)^{-4} A_1$$

$$= (1+i)^{-4} \cdot 4000\,\frac{(1+i)^4-1}{i}$$

Pour $i = 6\%$: $V_0 = 1.06^{-4} \cdot 4000 \cdot \frac{1.06^4-1}{0.06}$

$$= 13\,860{,}42\,€$$



$$A_2 = a + (1+i)a$$

$$= a\,\frac{(1+i)^2-1}{i}$$

$$13\,860{,}42 = 1.06^{-2} \cdot a\,\frac{1.06^2-1}{0.06}$$

$$a = 13\,860{,}42 \cdot 1.06^2 \cdot \frac{0.06}{1.06^2-1}$$

$$= \underline{\underline{7558{,}98\,€}}$$