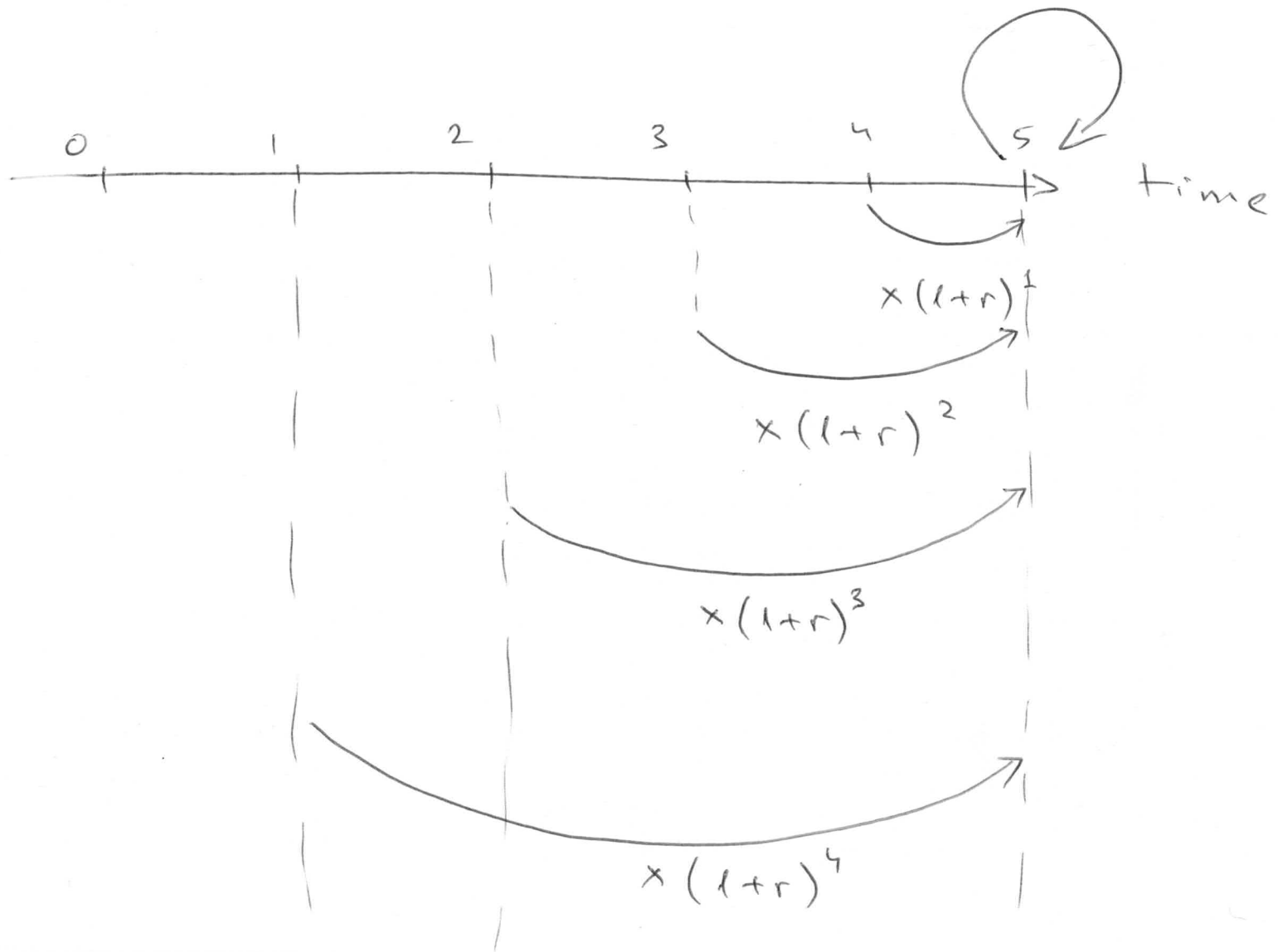
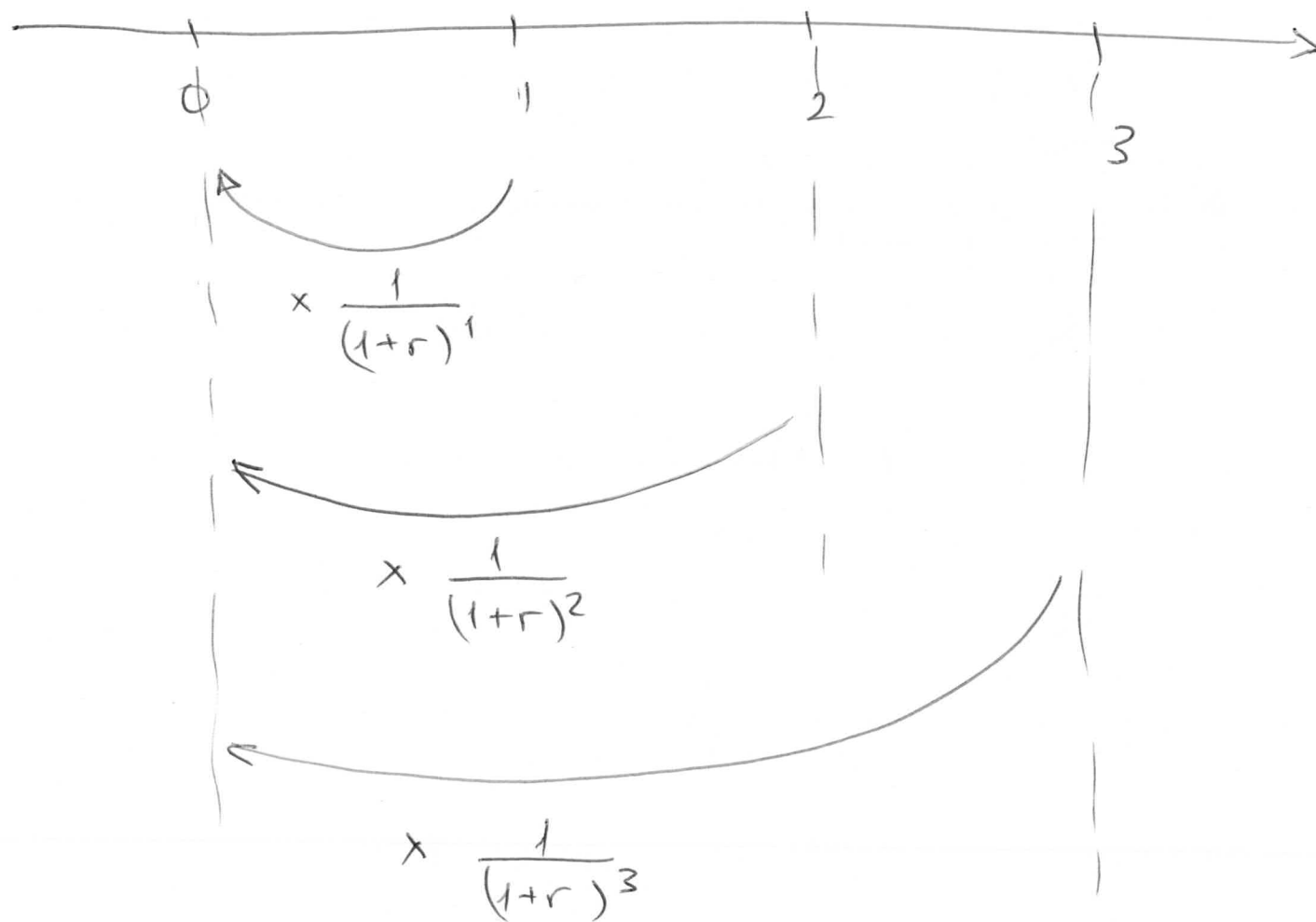


# FUTURE VALUES

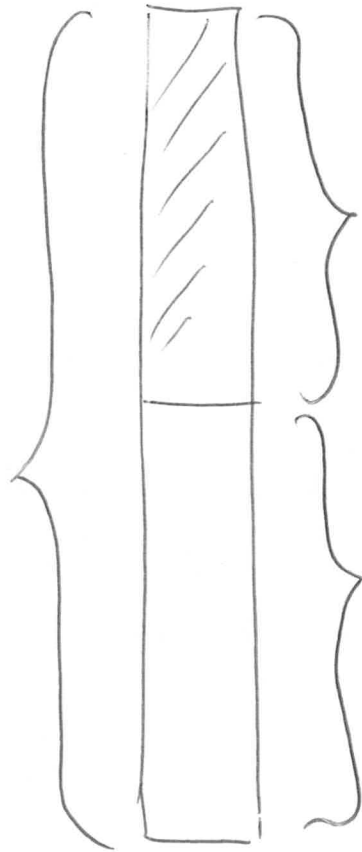
$$x(1+r)^0 = x1.$$



# PRESENT VALUES



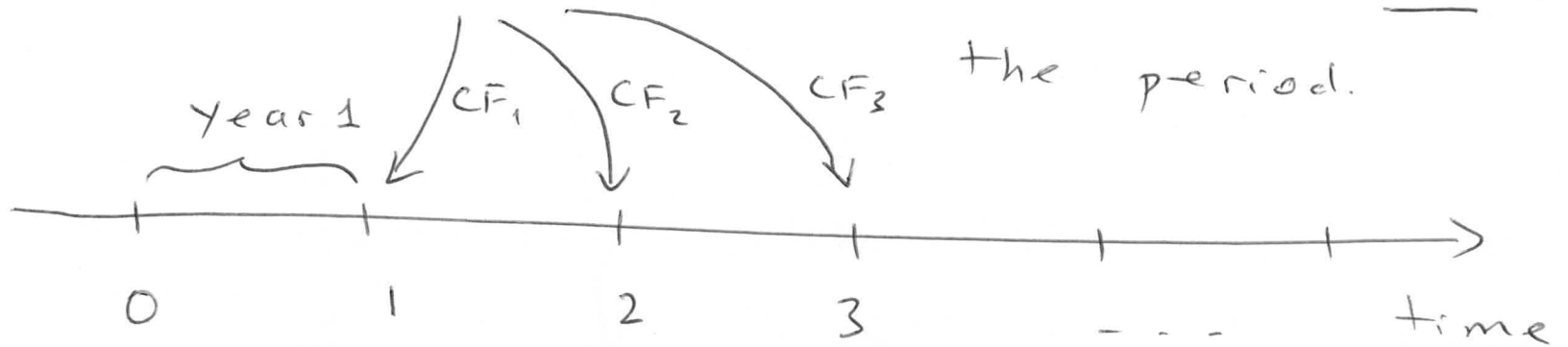
PV  
\$ 2,561.98



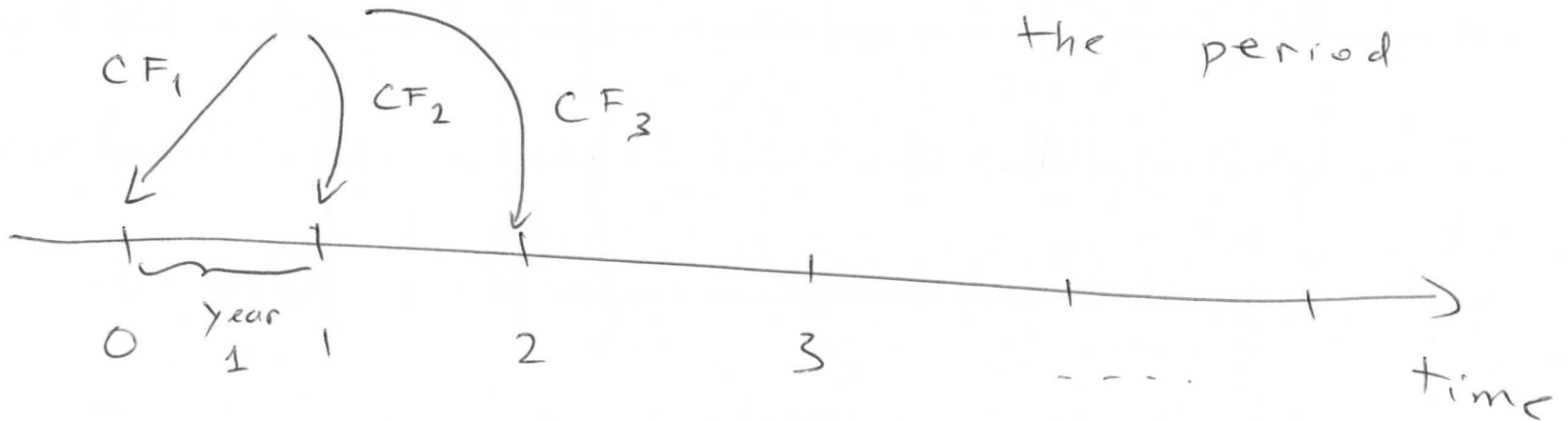
$PV_1$   
\$ 909.09  $\rightarrow$  \$ 1,000  
@  $t=1$

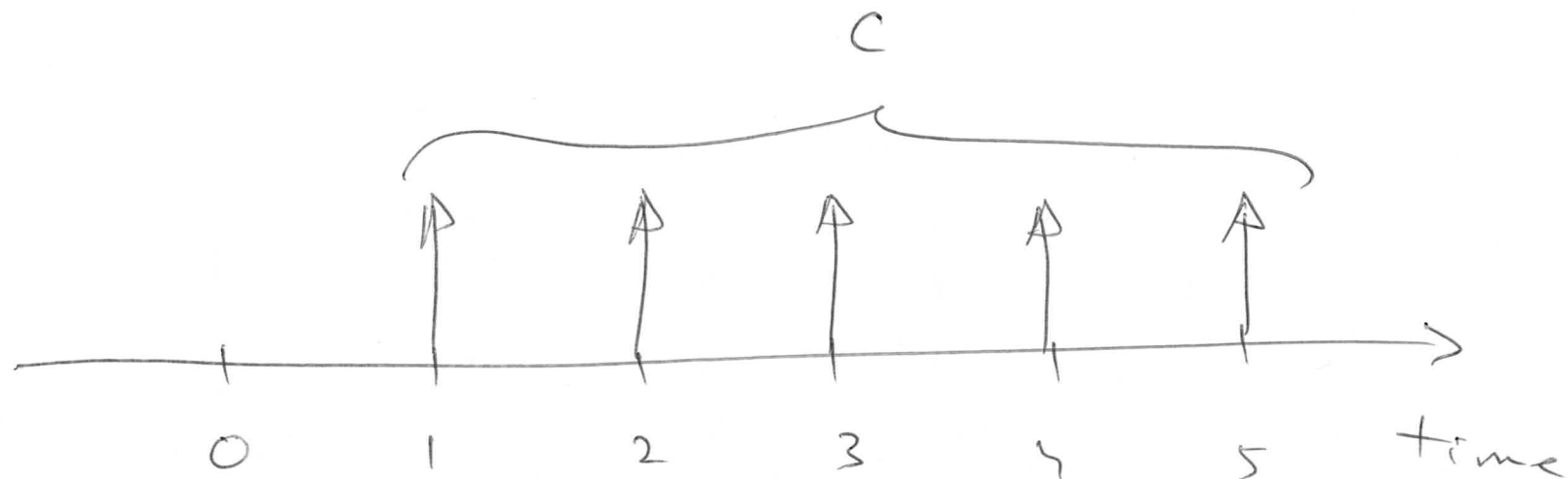
$PV_2$   
\$ 1,652.89  $\rightarrow$  \$ 2,000  
@  $t=2$

cash flows occur at the end of the period.



cash flows occur at the start of the period



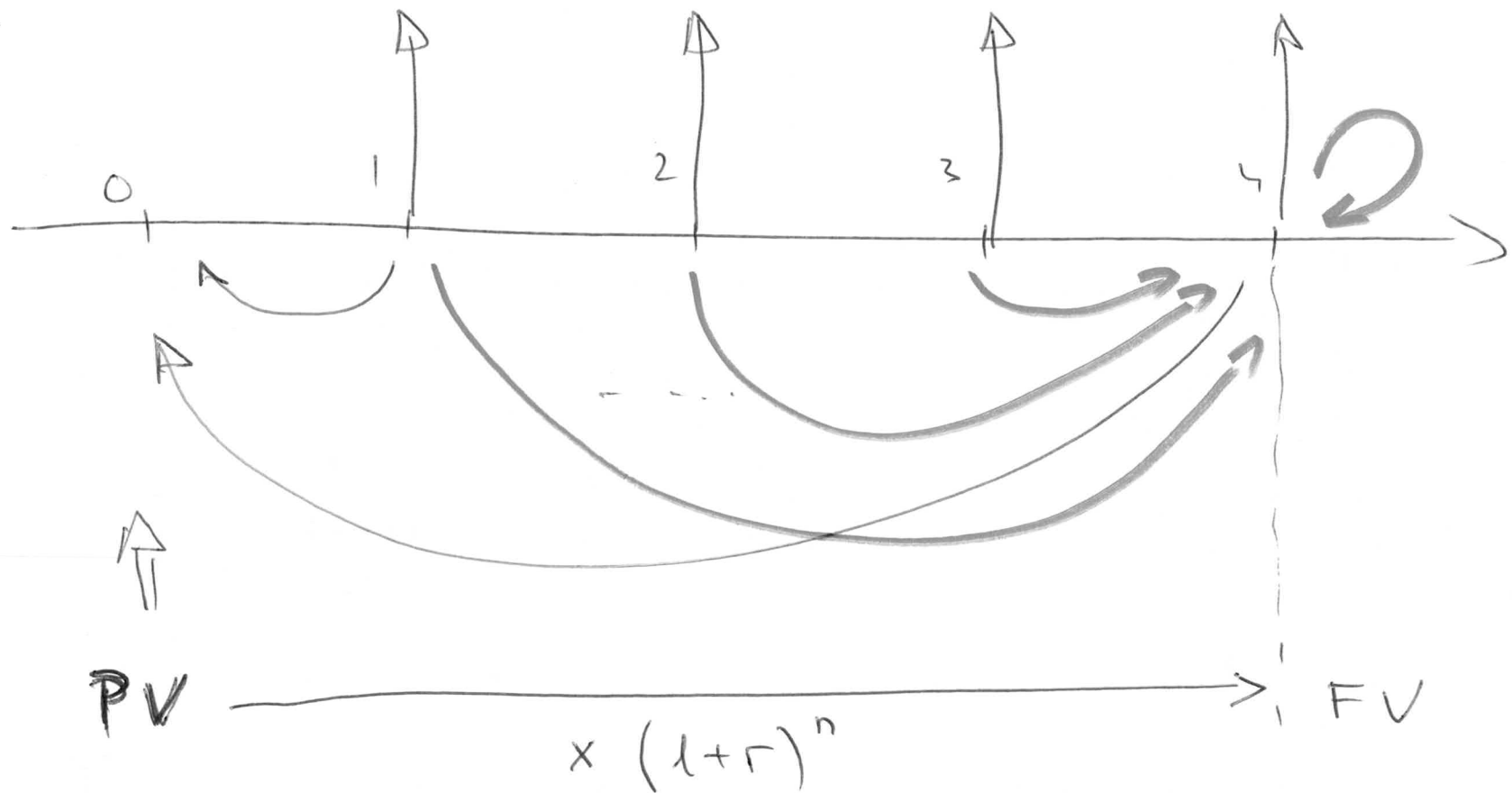


[ordinary] annuity

$$PV = C \cdot \frac{1 - \left(\frac{1}{1+r}\right)^n}{r} = 632 \cdot \underbrace{\frac{1 - \left(\frac{1}{1+.01}\right)^{48}}{.01}}_{\approx 37.97}$$

$$\approx 24,000.00$$

# FUTURE VALUE OF AN ANNUITY



$$\begin{aligned} & "n = t" \\ & n = 4 \end{aligned}$$