FV for Projects with many Cashflows

Example:

Today you have 100 USD in your savings account and you save another
- 10 USD in t1
- 20 USD in t2
- 50 USD in t3
- 30 USD in t4
- 25 USD in t5. (each cf at period´s end)

Calculate the **FV** of your savings account **after 5 years** given an interest rate of **3% p.a.**

Formula:

$$FV_N = \sum_{t=0}^{N} CF_t * (1+r)^{N-t}$$

FV_N : Future Value (at N)
CF_t: cashflow @ timestamp t
N: Total number of periods
r: Interest Rate (per period)
t = timestamp (0, 1, …, N)

FV many CFs - Solutions

$$100(1+0.03)^5 + 10(1+0.03)^4 + 20(1+0.03)^3 + 50(1+0.03)^2 + 30(1+0.03)^1 + 25 = 257.98$$