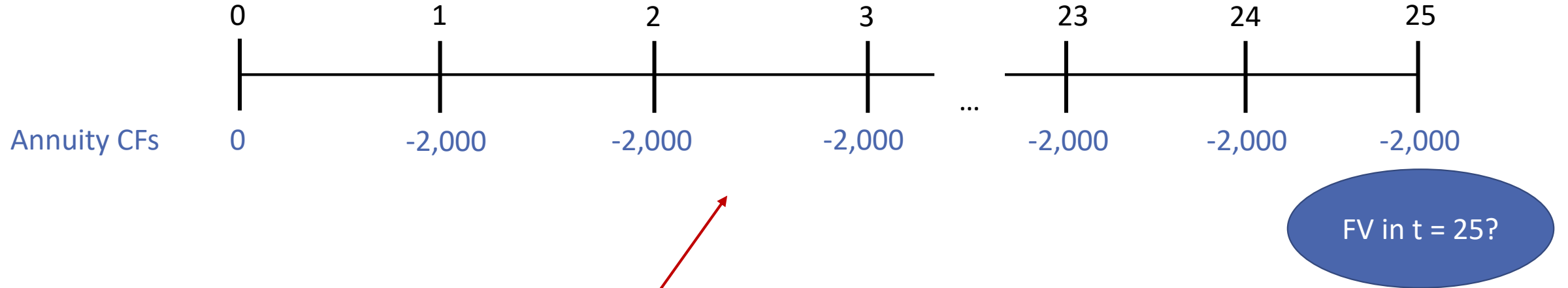


Annuity – Funding Phase

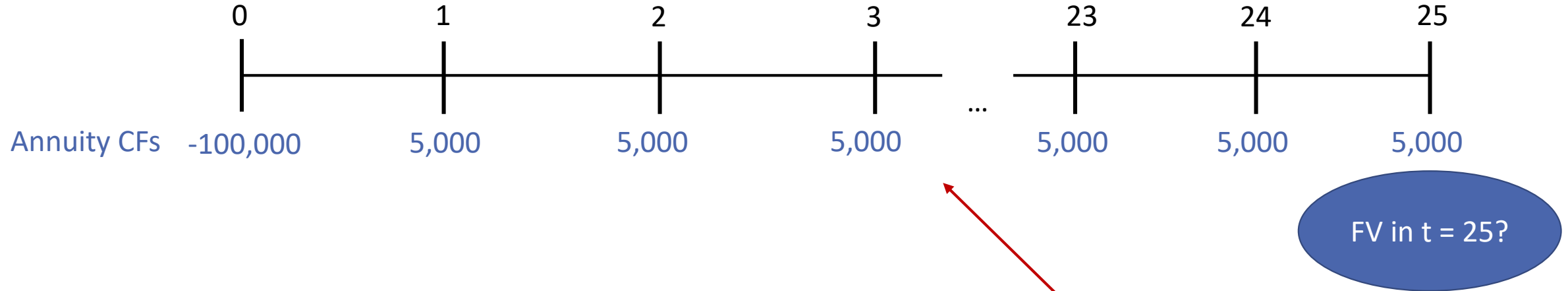
You save **2,000** USD p.a. for the next **25 Years** (payment at year end) and get an interest rate of **3%** p.a. on your savings. What is the value (**FV**) of your savings account in 25 years?



An Annuity is a stream of equal cashflows that occurs at equal intervals over a given period.
Retirement Plan: Funding Phase with equal outflows and Payout Phase with equal Inflows.

Annuity – Payout Phase

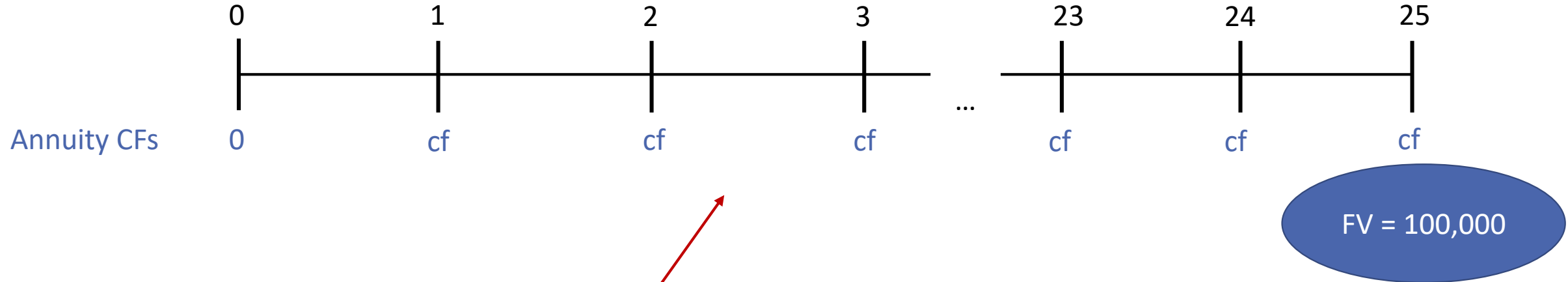
At Retirement, you have an Annuity Contract worth **100,000 USD**. Assume you get payouts of **5,000 USD** p.a. (in arrears) and a fixed interest rate of **3% p.a.**
What is the remaining value (**FV**) of your Contract after **25 years**?



An Annuity is a stream of equal cashflows that occurs at equal intervals over a given period.
Retirement Plan: Funding Phase with equal outflows and Payout Phase with equal Inflows.

Annuity – Solving for equal payments

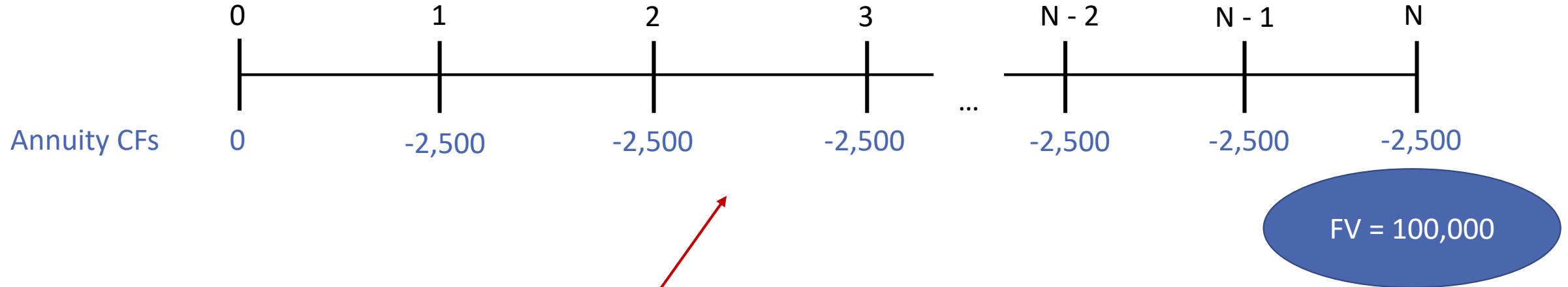
You consider to pay **25** annual installments (in arrears) into an Annuity Contract with an interest rate of **3%** p.a. Calculate the **annual payments** to end up with a Contract Value (**FV**) of **100,000 USD** in 25 years.



An Annuity is a stream of equal cashflows that occurs at equal intervals over a given period.
Retirement Plan: Funding Phase with equal outflows and Payout Phase with equal Inflows.

Annuity – Solving for number of periodic payments

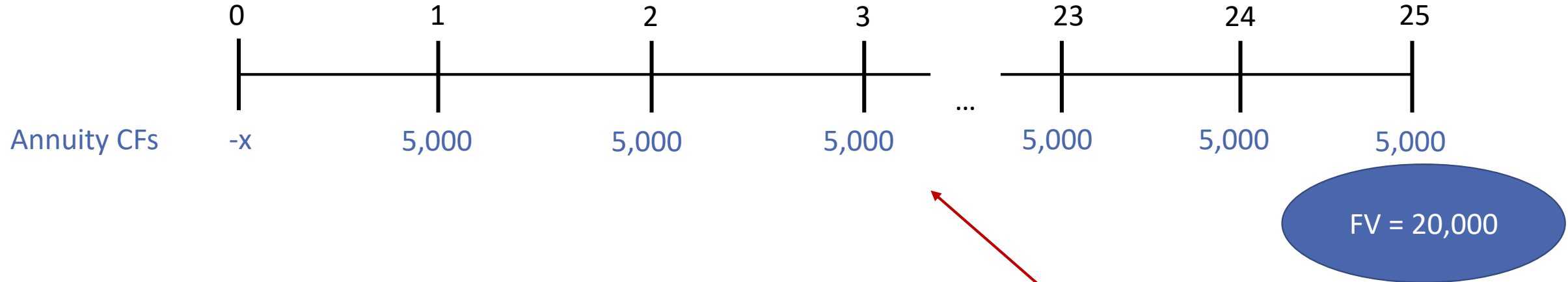
You consider to pay N annual installments of **2,500 USD** (in arrears) into an Annuity Contract with an interest rate of **3%** p.a. How long does it take until you end up with a Contract Value of **100,000 USD**?



An Annuity is a stream of equal cashflows that occurs at equal intervals over a given period.
Retirement Plan Funding Phase with equal outflows and Payout Phase with equal Inflows.

Annuity – Calculating the Contract Value

At Retirement, you have an Annuity Contract worth x USD. Assume you get payouts of **5,000 USD** p.a. (in arrears) and a fixed interest rate of **3%** p.a. The remaining value of your Contract after **25 years** shall be **20,000 USD**. Calculate the required initial Contract Value (**PV**)!



An Annuity is a stream of equal cashflows that occurs at equal intervals over a given period.
Retirement Plan: Funding Phase with equal outflows and Payout Phase with equal Inflows.

Retirement Plan A-Z

Assume a 30-year-old investor wants to retire in **35 years** at the age of 65. He will earn **4.0%** p.a. on his Investment during the Funding Phase (already fixed) and he expects to earn **3.0%** p.a. on his Investment during the Payout Phase (fixed upon retirement). **How much must he deposit** at the **end of each month** for the next 35 years in order to be able to withdraw **2,500 USD** per month (at the **beginning of each month**) for **25 years**? The Annuity Contract's final Value shall be **100,000 USD** when he is 90 years old (to cover some more years).

Funding Phase

Payout Phase

FV Funding Phase = PV Payout Phase !