

What is the future value in year 25 of the following cash flow stream given an expected return of 6.5% annually? All cash flows occur at the end of the year.

Year 1 \$20,000

Years 2-5 \$40,000 per year

Year 6 \$120,000

Years 7-10 \$10,000 per year

Year	Cash Flow	FCF
1	\$20 000	\$20 000,00
2	\$40 000	\$63 900,00
3	\$40 000	\$117 845,98
4	\$40 000	\$190 669,99
5	\$40 000	\$296 749,18
6	\$120 000	\$570 982,49
7	\$10 000	\$847 736,13
8	\$10 000	\$1 332 910,40
9	\$10 000	\$2 222 510,90
10	\$10 000	\$3 934 957,62
11		\$4 190 729,86
12		\$4 463 127,30
13		\$4 753 230,58
14		\$5 062 190,56
15		\$5 391 232,95
16		\$5 741 663,09
17		\$6 114 871,19
18		\$6 512 337,82
19		\$6 935 639,78
20		\$7 386 456,37
21		\$7 866 576,03
22		\$8 377 903,47
23		\$8 922 467,20
24		\$9 502 427,56
25		\$10 120 085,36

$$FV = PV \cdot (1 + i)^t$$

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For second year we calculate  $FCF = (20,000 + 40,000) \cdot (1 + 0,065)$ , so we add to new cash flow the previous accumulated sum.