

EXAM FM QUESTIONS OF THE WEEK

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Week of January 22/07

A 5-year annuity-immediate with monthly payments is structured to have the following payments:

- 2000 per month during the first 2 years
- 2500 per month during the next 2 years
- 3000 per month during the fifth year.

Interest is at a nominal annual rate of 6% compounded monthly.

Find the present value of the annuity.

The solution can be found below.

Week of January 22/07 - Solution

$$\begin{aligned}PV &= 2000a_{\overline{24}|.005} + 2500v^{24}a_{\overline{24}|.005} + 3000v^{48}a_{\overline{12}|.005} \\ &= 45,125.73 + 50,043.63 + 27,435.73 = 122,605.09.\end{aligned}$$