

EXAM MLC QUESTION OF THE WEEK

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Week of April 14/08

A fully discrete whole life insurance policy issued at age x has face amount 1,000,000 .

The policy expenses are:

	1st Year	Renewal Years
Percent of Premium	20%	5%
Face Amount	5 per 1000	1 per 1000
Per Policy	1000	200
Settlement	1000 (at the end of the year of death)	

You are given that $i = .1$, $\ddot{a}_x = 8.8187$ and $q_x = q_{x+1} = .02$.

Find ${}_2V_e$.

The solution can be found below.

Week of April 14/08 - Solution

$$[25,995.00(.8) - 6000](1.1) - (1,000,000 + 1000)(.02) = (.98)_1V_e$$

$$\rightarrow {}_1V_e = -3820.82,$$

$$[-3822.44 + (25,995.00)(.95) - 1200](1.1) - (1,000,000 + 1000)(.02) = (.98)_2V_e$$

$$\rightarrow {}_2V_e = 1654.97$$