EXAM M QUESTIONS OF THE WEEK

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Week of August 7/06

You are given the following:

$${}^{10}_{15}V_{50:\overline{25}|} = .75 \ , \ {}_{15}V_{50:\overline{25}|} = .45 \ , \ i = .08 \ .$$

Find $P_{50:\overline{25}|}$.

The solution can be found below.

Week of August 7/06 - Solution

From the prospective form of the reserve we have $\,_{15}^{10}V_{50:\overline{25}|} = A_{65:\overline{10}|} = .75$.

Then $\ddot{a}_{65:\overline{10}|} = \frac{1-A_{65:\overline{10}|}}{d} = 3.375$.

Using $\,_{15}V_{50:\overline{25}|} = \; = 1 - \frac{\ddot{a}_{65:\overline{10}|}}{\ddot{a}_{50:\overline{25}|}} = 1 - \frac{3.375}{\ddot{a}_{50:\overline{25}|}} = .45$ we get $\ddot{a}_{50:\overline{25}|} = 6.136$.

Then, $P_{50:\overline{25}|} = \frac{1}{\ddot{a}_{50:\overline{25}|}} - d = .089$.