

Chapter 6

General Formulas

Net Premium => Present Value of Premium = Present Value of Benefits

Gross Premium => Present Value of Premium = Present Value of Benefits + Present Value of Expenses

Variances

Premium Continuous; Benefits at Moment of Death	Annual Premiums; Benefits End of Year of Death
$Var[L_0^n] = \left(S + \frac{P}{\delta} \right)^2 \left({}^2\bar{A}_{x:\overline{n} } - (\bar{A}_{x:\overline{n} })^2 \right)$	$Var[L_0^n] = \left(S + \frac{P}{d} \right)^2 \left({}^2A_{x:\overline{n} } - (A_{x:\overline{n} })^2 \right)$
$n \rightarrow \infty$ for a whole life	$n \rightarrow \infty$ for a whole life