

ABSTRACT

ANALYSIS OF PREMIUM RESERVES WITH FULL PRELIMINARY TERM METHOD ON SINGLE LIFE STATUS FOR FRACTIONAL AGES

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During life, humans experience various unexpected events that can cause risks, such as death. One of the efforts to reduce this risks is join the life insurance. The customer is required to pay a premium and the insurance company provide compensation in the event of death. Insurance companies must prepare premium reserves as savings funds so that the company does not difficulties when a claim occurs. The amount of premium reserves is influenced by the value of the annuity, net single premium, and annual premium. One method that can be used on the calculation of premium reserves is the full preliminary term method. The calculation of the full preliminary term method assumes that the first year's reserves are zero, so negative reserves are not found. In calculating the premium reserve value on single life status for fractional age, it is necessary to modify the life chances in the mortality table by making a fractional age probability formula using linear interpolation. The results of this study is the premium reserve of the full preliminary term method has smaller value than prospective method, so insurance companies choose the prospective method to get a bigger profit.

Keywords: Life insurance, fractional age, linear interpolation, premium reserves, prospective method, full preliminary term.