

62. An insurer writes a large book of home warranty policies. You are given the following information regarding claims filed by insureds against these policies:

- (i) A maximum of one claim may be filed per year.
- (ii) The probability of a claim varies by insured, and the claims experience for each insured is independent of every other insured.
- (iii) The probability of a claim for each insured remains constant over time.
- (iv) The overall probability of a claim being filed by a randomly selected insured in a year is 0.10.
- (v) The variance of the individual insured claim probabilities is 0.01.

An insured selected at random is found to have filed 0 claims over the past 10 years.

Determine the Bühlmann credibility estimate for the expected number of claims the selected insured will file over the next 5 years.

- (A) 0.04
- (B) 0.08
- (C) 0.17
- (D) 0.22
- (E) 0.25