

151. You are given:

- (i) A portfolio of independent risks is divided into two classes.
- (ii) Each class contains the same number of risks.
- (iii) For each risk in Class 1, the number of claims per year follows a Poisson distribution with mean 5.
- (iv) For each risk in Class 2, the number of claims per year follows a binomial distribution with $m = 8$ and $q = 0.55$.
- (v) A randomly selected risk has three claims in Year 1, r claims in Year 2 and four claims in Year 3.

The Bühlmann credibility estimate for the number of claims in Year 4 for this risk is 4.6019.

Determine r .

- (A) 1
- (B) 2
- (C) 3
- (D) 4
- (E) 5