

245. You are given:

- (i) The number of claims follows a Poisson distribution.
- (ii) Claim sizes follow a gamma distribution with parameters α (unknown) and $\theta = 10,000$.
- (iii) The number of claims and claim sizes are independent.
- (iv) The full credibility standard has been selected so that actual aggregate losses will be within 10% of expected aggregate losses 95% of the time.

Using limited fluctuation (classical) credibility, determine the expected number of claims required for full credibility.

- (A) Less than 400
- (B) At least 400, but less than 450
- (C) At least 450, but less than 500
- (D) At least 500
- (E) The expected number of claims required for full credibility cannot be determined from the information given.