

**173.** You are given:

- (iv) The number of claims follows a negative binomial distribution with parameters  $r$  and  $\beta = 3$ .
- (v) Claim severity has the following distribution:

Claim Size	Probability
1	0.4
10	0.4
100	0.2

- (iii) The number of claims is independent of the severity of claims.

Determine the expected number of claims needed for aggregate losses to be within 10% of expected aggregate losses with 95% probability.

- (A) Less than 1200
- (B) At least 1200, but less than 1600
- (C) At least 1600, but less than 2000
- (D) At least 2000, but less than 2400
- (E) At least 2400