

**148.** You are given:

- (i) The number of claims has probability function:

$$p(x) = \binom{m}{x} q^x (1-q)^{m-x}, \quad x = 0, 1, 2, \dots, m$$

- (ii) The actual number of claims must be within 1% of the expected number of claims with probability 0.95.
- (iii) The expected number of claims for full credibility is 34,574.

Determine  $q$ .

- (A) 0.05
- (B) 0.10
- (C) 0.20
- (D) 0.40
- (E) 0.80