

138. You are given the following sample of claim counts:

0 0 1 2 2

You fit a binomial(m, q) model with the following requirements:

- (i) The mean of the fitted model equals the sample mean.
- (ii) The 33rd percentile of the fitted model equals the smoothed empirical 33rd percentile of the sample.

Determine the smallest estimate of m that satisfies these requirements.

- (A) 2
- (B) 3
- (C) 4
- (D) 5
- (E) 6