

208. An actuary has created a compound claims frequency model with the following properties:

- (i) The primary distribution is the negative binomial with probability generating function

$$P(z) = [1 - 3(z-1)]^{-2}.$$

- (ii) The secondary distribution is the Poisson with probability generating function

$$P(z) = e^{\lambda(z-1)}.$$

- (iii) The probability of no claims equals 0.067.

Calculate λ .

- (A) 0.1
(B) 0.4
(C) 1.6
(D) 2.7
(E) 3.1