

Solution for exercise 3.5.2 in Pitman

Assuming the number of raisins in a cookie X can be described by a Poisson distribution and that the mean value of X is λ we get

$$P(X \geq 1) = 1 - P(X = 0) = 1 - e^{-\lambda}$$

solving

$$e^{-\lambda} = 0.01$$

gives

$$\lambda = 4.605$$