

Question #259

Key: B

The estimator of the Poisson parameter is the sample mean. Then,

$$E(\hat{\lambda}) = E(\bar{X}) = \lambda$$

$$\text{Var}(\hat{\lambda}) = \text{Var}(\bar{X}) = \lambda / n$$

$$\text{c.v.} = \sqrt{\lambda / n} / \lambda = 1 / \sqrt{n\lambda}$$

It is estimated by $1 / \sqrt{n\lambda} = 1 / \sqrt{39} = 0.1601$.