

Question #114

Key: A

$$P(0) = \frac{1}{5} \int_0^5 e^{-\lambda} d\lambda = \frac{1}{5} \left(-e^{-\lambda} \right) \Big|_0^5 = \frac{1}{5} (1 - e^{-5}) = 0.1987$$

$$P(1) = \frac{1}{5} \int_0^5 \lambda e^{-\lambda} d\lambda = \frac{1}{5} \left(-\lambda e^{-\lambda} - e^{-\lambda} \right) \Big|_0^5 = \frac{1}{5} (1 - 6e^{-5}) = 0.1919$$

$$P(N \geq 2) = 1 - .1987 - .1919 = .6094$$