

Question # 81

Answer: C

Which distribution is it from?

$0.25 < 0.30$, so it is from the exponential.

Given that Y is from the exponential, we want

$$\Pr(Y \leq y) = F(y) = 0.69$$

$$1 - e^{-y/\theta} = 0.69$$

$$1 - e^{-y/0.5} = 0.69 \quad \text{since mean} = 0.5$$

$$\frac{-y}{0.5} = \ln(1 - 0.69) = -1.171$$

$$y = 0.5855$$