

Q101

3 กระดาษ, materialsexpo  $\mu = 4$  นิ้ว,  $\sigma = 2$  ,  $e = 2.71828183$

a  $(1, 2, 3) > 5$  นิ้ว  
↑  
กระดาษ

$$\lambda = \frac{1}{\mu} \\ = \frac{1}{4} \\ = 0.25$$

$$\begin{aligned} P(X > 5) &= 1 - P(X \leq 5) \\ &= 1 - (1 - e^{-(0.25)(5)}) \\ &= 1 - 1 + \frac{1}{e^{1.25}} \\ &= \frac{1}{e^{1.25}} \\ &= 0.2865 \end{aligned}$$

b

$$\begin{aligned} P(X < x) &= 0.05 \\ 1 - e^{-0.25(x)} &= 0.05 \end{aligned}$$

$$e^{-0.25x} = 0.95$$

$$-0.25x = \log_e(0.95)$$

$$-0.25x = -(0.0513)$$

$$x = 0.2052$$

$$a^x = 2$$

$$\log x = a^2$$

$$\log_{10} 100 = 2$$

$$10^2 = 100$$

$$2 = \log_{10} 100$$