

ex 35.

令 X 為 10 呎寬、30 呎長的玻璃氣泡瑕疵個數，則 $X \sim P_0(3)$ ：

$$(1) P(X=0) = \frac{e^{-3} 3^0}{0!} = 0.0498 \quad (2) P(X=2) = \frac{e^{-3} 3^2}{2!} = 0.224$$

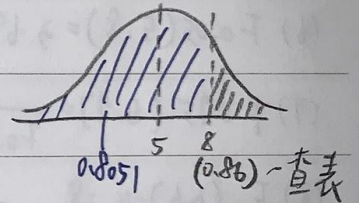
$$\rightarrow P(X=2) = P(X \leq 2) - P(X \leq 1)$$

$$= 0.4232 - 0.1991 = 0.2241 \#$$

ex 39.

令 X 為上網時間長度，則 $X \sim N(5, 3.5^2)$ ，

$$P(X > 8) = P\left(Z > \frac{8-5}{3.5}\right) = P(Z > 0.86) = 1 - 0.8051 = 0.1949$$



$$P_{z=2.8} \approx 1.$$

$$(1) t_{0.025}(10) = 2.228$$

$$(2) t_{0.95}(8) = -t_{0.05}(8) = -1.86$$

$$(3) \chi^2_{0.05}(12) = 21.03$$

$$(4) \chi^2_{\alpha}(15) = 7.26 \quad \alpha = 0.95$$

$$(5) \chi^2_{0.95}(10) = 3.94$$

$$(6) F_{0.05}(5, 8) = 3.69$$

$$(7) F_{0.95}(6, 7) = \frac{1}{F_{0.05}(7, 6)} = \frac{1}{3.87}$$

$$(8) F_{\alpha}(6, 6) = 4.28 \quad \alpha = 0.05$$