

Content:

③ 1. 離散

$$2. X \sim B(10, 0.5), P(X \geq 6) = 1 - 0.623 = 0.377$$

$$\Rightarrow P(X \leq 4) = 0.377$$

③④

令: X 為一個月無預警 $X \sim P(0.5)$

$$① P(X=0) = \frac{e^{-0.5} 0.5^0}{0!} = e^{-0.5} = 0.6025$$

$$② P(X \geq 1) = 1 - P(X=0) = 1 - e^{-0.5} = 0.3935$$

$$P(X=x) = \frac{e^{-k} k^x}{x!}$$

$$P(X=k) = \sum_x \frac{k^x}{x!} e^{-k}$$

③⑤ 令 X 為 100F 電

$$① P(X=0) = \frac{e^{-3.3} 3.3^0}{0!} = 0.0498$$

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

$$② P(X=2) = \frac{e^{-3.3} 3.3^2}{2!} = 0.224$$

$$= 0.4232 - 0.1991$$

$$= 0.2241$$

③⑥ 令 X 為上網時間長度 $X \sim N(5, 3.5^2)$

$$P(X > 8) = P(Z > \frac{8-5}{3.5})$$

$$= P(Z > 0.86)$$

$$= 1 - 0.8051$$

$$= 0.1949$$