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L4
P.133 . P.135. . P.136

6. (1) 是．離散的

(2) $X \sim B(10, 0.5)$，$P(X \geq 6) = 1 - P(X \leq 5) = 1 - 0.623 = 0.377$

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

34. (1) $P(X=0) = \dfrac{e^{-0.5} 0.5^0}{0!} = e^{-0.5} = 0.6065$

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

'公式' $P(X=x) = \dfrac{e^{-k} k^x}{x!}$ $P(X=k) = \sum_{x=0}^{k} \dfrac{M^x}{x_i} e^x$
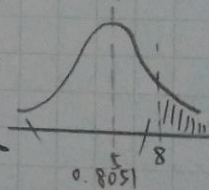
35. (1) $P(X=0) = \dfrac{e^{-3} 3^0}{0!} = 0.0498$

表格是累積，需圈的要扣掉前一個

(2) $P(X=2) = \dfrac{e^{-3} 3^2}{2!} = 0.224 \rightarrow P(X=2) = P(X \leq 2) - P(X \leq 1)$

⟱

$0.4232 - 0.1991 = 0.224$

39. $P(X > 8) = P(Z > \dfrac{8-5}{3.5}) = P(Z > 0.86) = 1 - 0.8051 = 0.1949$

0.8051   5 8

L5
P.176

8. (1) $P(X > 15) = P(\dfrac{X - 13.2}{5.3} > \dfrac{15 - 13.2}{5.3}) = P(Z > 0.34) = 1 - P(Z \leq 0.34) = 1 - 0.6331$

$= 0.3669$

(2) $X \sim N(13.2, 5.3^2)$ $\bar{x} \sim N(13.2, \dfrac{5.3^2}{16})$ $\dfrac{\bar{x} - 13.2}{\frac{5.3}{\sqrt{16}}} \sim N(0,1)$

$P(\bar{x} > 15) = P(\dfrac{\bar{x} - 13.2}{\frac{5.3}{\sqrt{16}}} > \dfrac{15 - 13.2}{\frac{5.3}{\sqrt{16}}}) = P(Z > 1.36) = 1 - P(Z \leq 1.36)$

$= 1 - 0.9131 = 0.0869$