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

$P(X = k) = \sum_{x=0}^{k} \frac{\mu^x}{x!} e^x$

令一個月內發生無預警停駛為 X

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

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

35. 令 X 為 10 呎寬、30 呎長的玻璃氣泡瑕疵個數

$X \sim Po(3)$:

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

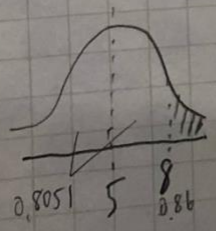
(2) $P(X = 2) = \frac{e^{-3} 3^2}{2!} = 0.224$

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

39. 令 X 為上網的時間長度，則 $X \sim N(5, 3.5^2)$

$P(X > 8) = P(Z > \frac{8-5}{3.5}) = P(Z > 0.86)$

$= 1 - 0.8051 = 0.1949$



8 設 X 表木村書豪在 2012~2013 年球季每場球的得分

$X \sim N(13.2, 5.3^2)$.

(1) $P(X > 15) = P(\frac{X-13.2}{5.3} > \frac{15-13.2}{5.3})$

$= P(Z > 0.34)$

$= 1 - P(Z \leq 0.34)$

$= 1 - 0.6331 = 0.3669$

(2) $\bar{X} \sim N(13.2, \frac{5.3^2}{16})$

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

$P(\bar{X} > 15) = P(\frac{\bar{X}-13.2}{\frac{5.3}{\sqrt{16}}} > \frac{15-13.2}{\frac{5.3}{\sqrt{16}}})$

$= P(Z > 1.36) = 1 - P(Z \leq 1.36)$

$= 1 - 0.9131$

$= 0.0869$

liang