6.

(1) 是，离散的

(2) $X \sim B(10, 0.7)$, $P(X \geq 6) = 1 - P(X \leq 5)$

$= 1 - 0.623 = 0.377$

(3) $X \sim B(10, 0.5)$, $P(X \leq 4) = 0.377$

34. (1) $X \sim P_0(0.5)$ $P(X = x) = \frac{e^{\lambda} \cdot \lambda^x}{x!}$

$P(X=0) = \frac{e^{-0.5} 0.5^0}{0!} = e^{-0.5} = 0.6065$ $P(X = k) = \sum_{x=0}^{k} \frac{\lambda^x}{x_i} e^{\lambda}$

(2) $P(X \geq 1) = 1 - P(X = 0) = 1 - e^{-0.5} = 1 - 0.6065 = 0.3935$

35. $X \sim P_0(3)$

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

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

39. $X \sim N(5, 3.5^2)$

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

$= 1 - 0.805) = 0.1949$