Fórmulas para el primer parcial

$$f(x) = P(X = x) = \binom{n}{x}.p^x.(1-p)^{n-x} \qquad E(X) = n.p \qquad V(X) = n.p.(1-p)$$

$$f(x) = P(X = x) = \frac{e^{-\lambda}.\lambda^x}{x!} \qquad E(X) = \lambda \qquad V(X) = \lambda$$

$$f(x) = P(X = x) = \binom{x-1}{r-1}.p^r.(1-p)^{x-r} \qquad E(X) = \frac{r}{p} \qquad V(X) = \frac{r.(1-p)}{p^2}$$

$$f(x) = P(X = x) = p \quad .(1-p)^{x-1} \qquad E(X) = \frac{1}{p} \qquad V(X) = \frac{(1-p)}{p^2}$$

$$f(x) = \begin{cases} \lambda.e^{-\lambda x} & si \quad x \geq 0 \\ 0 & c.c \end{cases} \qquad F(x) = \begin{cases} 1 - \ e^{-\lambda.x} & si\ x \geq 0 \\ 0 & c.c \end{cases} \qquad E(X) = \frac{1}{\lambda} \qquad V(X) = \frac{1}{\lambda^2}$$

$$f(x) = \begin{cases} \dfrac{1}{b-a} & si \quad a \leq x \leq b \\ 0 & c.c \end{cases} \qquad F(x) = \begin{cases} 0 & si\ x < a \\ \dfrac{x-a}{b-a} & si\ a \leq x \leq b \\ 1 & si\ x > b \end{cases} \qquad E\ (X) = \frac{a+b}{2} \qquad V(X) = \frac{(b-a)^2}{12}$$