61. Let $X \sim \text{gamma}(\alpha, \beta)$ and consider the CDF $F_X(x) = P(X \leq x)$ of X. Let Y represent a Poisson(λ) distribution where $\lambda = x/\beta$.For the values of α and β below, calculate $P(X \leq x)$ and $P(Y \geq \alpha)$. Compare the probabilities. You may use R to compute exact probabilities.

    (a) $\alpha = 25, \beta = 10, x = 200$

    (b) $\alpha = 2, \beta = 6, x = 6$