QF602 - Homework 7

Question

- **Part A**. Consider the event that exactly one asset jump arrives in a interval $[0, T]$. Determine the probability of this event happening. The arrival intensity is λ.
- **Part B**. This event is the same as the event that there is exactly one asset jump in the interval $[0, \frac{T}{2})$ and no jumps in the interval $[\frac{T}{2}, T]$, or no jumps in $[0, \frac{T}{2})$ and exactly one in $[\frac{T}{2}, T]$. Confirm that this calculation gives rise to exactly the same probability.