BIOC 455/555 Fall 2016 Homework # 10 Due at the beginning of class on Tuesday, November 22nd.

Consider a linear chain of two exponentially distributed events, with rates λ_1 and λ_2 .

- 1) Find the PDF of the time it takes to make it through this two-step chain.
- 2) Find the mean of the above distribution.
- 3) Find the PDF in the limit $\lambda_1 = \lambda_2$.