Math 5411 – Mathematical Statistics I
– Fall 2024 w/Nezamoddini-Kachouie

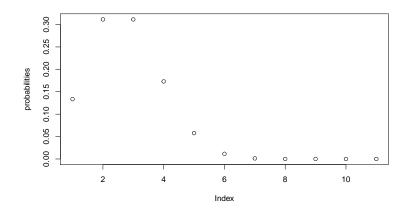
 $\begin{array}{c} {\rm Paul~Carmody} \\ {\rm Quiz}~\#2-{\rm September}~18,\,2024 \end{array}$

Started 6:47, Ended 7:05

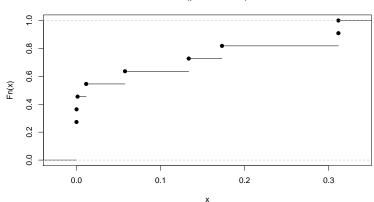
Use R and plot PMF and CDF of a Binomial distribution with:

X Binomial (n, p)

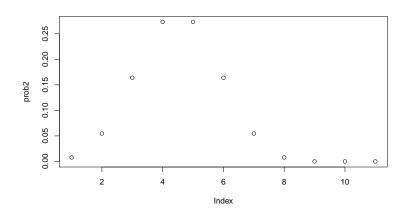
a) n = 7, p = 0.25

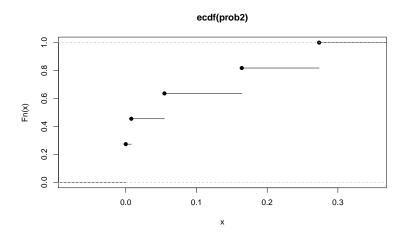


ecdf(probabilities)

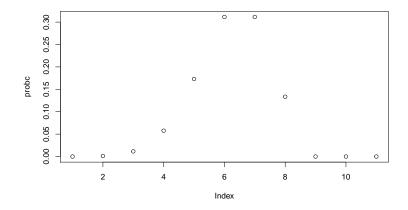


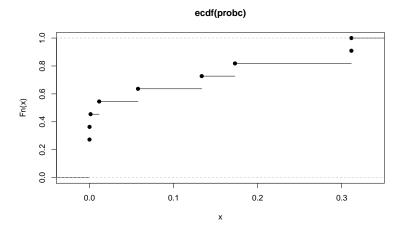
b)
$$n = 7, p = 0.50$$





c)
$$n = 7, p = 0.75$$





- d) What value(s) of X is (are) most likely in each part a, b, and c? a – between 1 and 5, b – between 3 and 8, c – between 4 and 9
- e) d) What value(s) of X is (are) least likely in each part a, b, and c? a – greater than 5, b – 0 or 1 and greater than 8, c – less than 3 and greater than 9