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Lab4.2

Binomial PMF

I had the program run 40 trials. For the values of P I used

.5- The result was a graph that stayed at y = 0 until x =10, then it increased to y ~ .13 by x=20, and then symmetrically decreased again.

.25-The binomial increases at x = 0 and caps out at x = 10. It reaches 0 at x = 20.

.75- The binomial increases at x = 20 and caps out at x = 30. It reaches 0 at x = 40.

Binomial CDF

I had the program run 40 trials.

The plot increases at a point on the graph and then levels out at the top, but never goes back to 0. Where the increase in y occurs varies depending on the number of p. The lower the p value is the closer to x = 0 the graph will increase from y = 0.

For example, at p = .5 the graph increases at x = 10 and maxes at y = 1 when x = 30. For p = .25 the graph increases at x=0 and maxes at y=1 when x = 20.

Geometric PMF

I ran 10 trials for this.

For plot showed a trend in the y-value decreasing from y = p starting at x = 1. As the values of x increased the curve started to flatten out. The curve appeared to have a limit of x = 0.

Geometric CDF

Almost the opposite happened with the CDF than the PMF. The plots started at x = 1 and increased in y value as x increased. The y-values started at y = p. The plot created a stair effect, with y remaning constant from [x1,x2), then jumped to a higher y-value. The limit appeared to be y=1.