Nouf Albarakati- M4.2 (20p)

1. Probability mass function and cumulative distribution function of **binomial distribution**.

|  |  |  |
| --- | --- | --- |
|  | PMF | CDF |
| P=0.1 |  |  |
|  |  |
| P=0.5 |  |  |
|  |  |
| P=0.7 |  |  |
|  | the PMF plot is shifting to the right as the p value increases. Also the peak of the plot is getting higher. For CDF, the plots is shifting to the right as much as the PMF does |

1. Probability mass function and cumulative distribution function of **geometric distribution**.

|  |  |  |
| --- | --- | --- |
|  | PMF | CDF |
| P=0.1 |  |  |
|  |  |
| P=0.5 |  |  |
|  |  |
| P=0.7 |  |  |
|  | The PMF and CDF plots are a reflection to each other. The curves get sharp as the p value increases  |