**Second Homework**

**Introduction to Statistics (102 – 103 )**

**Date: 03-04-2021 Due Date: 12/04/2021**

**Q1- Consider the probability distribution shown here. X is a discrete random variable.**

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| --- | --- | --- | --- |
| **Xi** | **3** | **6** | **9** |
| **P(xi)** | **.2** |  | **.4** |

a) Find **p(x=6).**

**b) Calculate** µ.

d) p(x=9)

p(x<6)

p(x≤5)

**Q2- If x is a binomial random variable, compute p(x) for the following**

**case: n= 6, p = .5 Find the following probabilities:**

**a) p(x=4)**

**b) p(x<3)**

**c) Calculate µ**

**d) Calculate s2**

**e) Calculate s**

**1) Assuming the Graduate Management Administration Test (GMAT) scores are normally distributed with mean 500, and standard deviation 100 . find the following probabilities :**

1. **a) What proportion falls between 500 and 650?**

1. **b) What proportion falls between 450 and 600?**

1. **c) What proportion falls between 550 and 750?**