October 10th, 2019 **Statistics 1** **Quiz 9**

http://www.isibang.ac.in/∼athreya/Teaching/statistics1

Name: _____ **Score:** ☐

1. From the graph $G(10, \frac{x}{6})$ or from A that you constructed, fill in the following table from the data in worksheet:

x	# Edges

2. Let E denote the number of edges in a realisation of $G(10, \frac{x}{6})$. Find the likelihood $L(x; E)$ that E edges occur in the random Graph $G(10, \frac{x}{6})$.

3. Find x^* that maximizes $L(x; E)$ with respect to x. You may assume $x \in [1, 5]$.

4. Substitute your value of E from Question 1, into the expression for x^*. Is the resulting x^* close to your chosen x ?