Math 21 – Chapter 6 Project

1) The number of bike crashes on a certain college campus follows a Poisson distribution with a mean of 2.9 crashes per day. Find the probability that there will be 2 bike crashes on that campus today.

2) According to company data, 32% of the people who take cruises are at least 60 years old. If 7 people on a cruise ship are selected at random, find the probability that at least one of them is at least 60 years old.

3) Ten percent of the adults in a certain city hold a bachelor's or higher degree. If 5 adults from this city are selected at random, find the probability that at least 3 do not have a bachelor's or higher degree.

4) The number of teachers absent in a small school district follows a Poisson distribution with a mean of 2 absences per day. If the district has 5 substitute teachers available, find the probability that the district will not have enough substitute teachers on a given day.

5) The number of runs scored by a minor league baseball team follows a Poisson distribution with a mean of 4.7 runs per game. Find the probability that the team scores exactly 11 runs in the next two games.