Name: _____

1. Basketball player LeBron James makes a free throw shot about 75% of the time. Find the probability that LeBron James makes his first free shot before his third attempt. (for a geometric distribution $P(x) = pq^{x-1}$)

2. The mean number of accidents per month at a certain intersection is three. What is the probability that more than four accidents will occur in any given month at the intersection? (for a Poisson distribution $P(x) = \dfrac{\mu^x e^{-\mu}}{x!}$ where $e \approx 2.718$)