1.(1 pt) Given that x is a random variable having a Poisson distribution, compute the following:

(a) $P(x = 1)$ when $\mu = 6$

$P(x) =$ _____

(b) $P(x \leq 7)$when $\mu = 1.5$

$P(x) =$ _____

(c) $P(x > 6)$ when $\mu = 2.5$

$P(x) =$ _____

(d) $P(x < 3)$ when $\mu = 3.5$

$P(x) =$ _____

2.(1 pt) A statistics professor finds that when he schedules an office hour for student help, an average of 2.4 students arrive. Find the probability that in a randomly selected office hour, the number of student arrivals is 5.

3.(1 pt) The mean number of patients admitted per day to the emergency room of a small hospital is 2.5. If, on any given day, there are only 5 beds available for new patients, what is the probability that the hospital will not have enough beds to accommodate its newly admitted patients?

answer: _____

4.(1 pt) A certain typing agency employs two typists. The average number of errors per article is 4.1 when typed by the first typist and 3.4 when typed by the second. If your article is equally likely to be typed by either typist, find the probability that it will have no errors.