Binomial Distribution

For practice, solve the follwing examples for the various values of n, p, & X.

n	p	X	Prob
6	0.20	X = 0	0.2621
6	0.20	X = 1	0.3932
6	0.20	X < 1	0.2621
6	0.20	X < 2	0.6554
6	0.20	X >= 2	0.3446
7	0.10	X = 2	0.1240
7	0.10	X = 3	0.0230
6	0.05	X = 0	0.7351
6	0.05	X = 1	0.2321
5	0.15	X = 1	0.3915
5	0.15	X = 2	0.1382
5	0.20	X = 3	0.0512
5	0.20	X = 2	0.2048

Poisson Distribution

1. Suppose the arrival of cars at a toll booth follows a Poisson Process with an average of 1.8 cars per 10 seconds. What is the probability of no cars arriving in 10 seconds?
Answer = 0.1653

2. Suppose the arrival of cars at a toll booth follows a Poisson Process with an average of 1.8 cars per 10 seconds. What is the probability of more than two cars arriving in 10 seconds?
Answer = 0.2694

3. Suppose the arrival of cars at a toll booth follows a Poisson Process with an average of 1.8 cars per 10 seconds. What is the probability of no cars arriving in 20 seconds?
Answer = 0.0273