1. Calculate the mean, median and standard deviation of the following data:

   10, 16, 12, 20, 18, 209, 16 , 11, 13, 14,17,20,25

2. Prepare a relative frequency histogram of the following data, use 4 classes.

   43,35,41,41,39,38,41,40,45, 43,52,36,43,38,39,44,45,30,37,40,39.41.44.46,39,

   40.44,37,47,48,49,51,53.52,51,39.

3. Calculate the probability of the following binomial distributions

   (a) P(X=1) if n=11 and p=0.26

   (b) P(X>2) if n=12, p=0.42

4. For a Poisson distribution with mean 3, calculate the following probabilities

   (a) P(X<4)

   (b) P(x=5)

5. Calculate the expected value and the variance of the random variable X having the following probabilities

X	20	25	30	40	50	60
P(X)	0.1	0.25	0.1	0.25	0.16	0.14

6. Suppose that a random variable X is distributed as normal with mean 100 and variance 9.

   Calculate the following probabilities

   (a) P(X>105) (b) P(99<X<103)

7. Calculate the 95% confidence interval for μ if $\bar{x} = 25, s^2 = 6$ and n=24. Assume the observations are from a normal population.