Problem 1: Consider the following sample of data values:

$$10,\ 9,\ 7,\ 12,\ 11,\ 9,\ 12,\ 8,\ 13,\ 10$$

(a) Find P_{27}.

(b) Find P_{70}.

Problem 2: Construct a stem-and-leaf plot of the following data:

$$11,\ 21,\ 11,\ 12,\ 35,\ 22,\ 35,\ 31,\ 37,\ 42,\ 41,\ 32,\ 64$$

Problem 3: A die is rolled 3 times. What is the probability of getting at least one 4?

Problem 4: You want to estimate the proportion of Americans who like the health care reform bill. You want the error to be at most 0.03 and you want the confidence level to be 99%. You have no prior estimate of the proportion. What should your sample size be? What if you had data suggesting the proportion of Americans supporting the bill was 56%?