

Name:

ID #:

Section 6

Serial #:

Q1 A certain area of the country is, on the average, hit by 6 hurricanes per year.

a. What is the probability that it takes less than one and a half months for the next hurricane to hit?

b. What is the expected time of the next hurricane to hit?

c. What is the third quartile of the time for the next hurricane to hit?

Q2 The average life of a bread-making machine is 7 years. Stating any further assumptions needed to solve the problem, answer the following

a. Given that, the variance of the machines' life is 1 year^2 , what is the probability that the total lives of a random sample of 36 such machines will not exceed 40.2 years?

b. Given that, a sample of 9 such machines has a standard deviation of 1 year, what is the approximate probability that the mean life of the 9 machines will exceed 7.2 years?

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