

King Fahd University of Petroleum & Minerals
Department of Mathematics & Statistics
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Quiz #4

Name: _____

ID: _____

Serial: _____

Q 1: A recent study in Riyadh has concluded that the distance that workers daily travel to work averages 19.3 km with a standard deviation of 5.6 km. Assuming these values correspond to the parameters of a normal population,

1. What is the probability that a worker will travel less than 20 km?
2. What is the probability that a sample of 49 yields an average travel distance less than 20 km?
3. What is the value of the sample mean such that 97% of the mean above this value?

Q 2: A manufacturer claims that the average life of its light bulb is 1,200 hours. Determine the probability the mean life time of a random sample of 49 bulbs will be at least 1,180 hours