
Show all necessary work .[You MUST show some process]

1[do NOT use graphing calculator for this question, show workings and write answer]

a) Find the mean of 7, 8, 9

b) Find the standard deviation
of SAMPLE data 7, 8, 9

1c) Find the standard deviation of
POPULATION data 7, 8, 9

3. Use the following information to answer the questions that follow;

A population of 1000 workers in an office building was found to have an average of \$26.00 dollars in their pockets with a standard deviation of \$8.00

a) sketch an approximate frequency graph

b) approximately what percentage of people
have between \$18.00 and \$34.00

4. For the following situation name the sampling method and explain if it is biased or not.

A while walking to the candy store with his friend, John asks them if they like sweets?

5. A large number of samples of size 25 are taken from a population with a known mean of 242 and standard deviation of 10.

a) What is an approximate value of the mean of the means of all the samples?

b) What is an approximate value of the standard deviation of the means of all the samples?

6 A sample from a population was asked "How many living relatives do you know?". The population has a known standard deviation of 30. The mean number of living relatives is 56. If the sample size was 36, between what values will 95% of averages fall for a sampling distribution (what is a 95% confidence interval)?

7a) A population has an unknown mean and standard deviation. A sample of 64 is taken and is found to have a mean of 80 and a standard deviation of 24. Find the 90% confidence interval.

b) State the confidence interval