

QM213 Review Questions Week 7 part 1: Sampling

1. As the sample size increases, the variability among the sample means
2. In a standard Normal distribution, the probability that a z-score is greater than 0 is
3. If you were studying the career intentions of all students currently at Starfleet Academy, which method would probably give you the most representative sample?
4. Given that event E has a probability of 0.25, the probability of the complement of event E
5. Which of the following is the best method of generating a random sample of size 50 from all the passengers on a Concorde Jet?
6. A continuous random variable may assume
7. Which of the following is a good method of generating a random sample of size 100 from all the students currently enrolled in Starfleet Academy?
8. Probabilities can be in the range
9. A researcher picks a random sample of packages from the Starfleet transporter system at Starfleet HQ and measures their degree of destabilization. What is the population from which this sample is drawn?
10. The set of all elements of interest in a study is
11. larger values of the standard deviation result in a Normal curve that is
12. When we draw a simple random sample from an infinite population,
13. For any Normal probability distribution, the area to the left of the mean is exactly
14. Which Excel function lets you compute the weight of a Starfleet cadet below which 10% of the population lies if the mean is 79.3 kg and the standard deviation is 18.8 kg?
15. If the probability of answering a question wrong is 12%, what is the probability of answering a question correctly?
16. Whenever the population has a Normal probability distribution and we know the parametric variance, the theoretical sampling distribution of the sample mean is a Normal probability distribution for
17. Which Excel function gives you the likelihood of chancing on an observed weight of 65 kg or less for a Starfleet cadet if weight is a Normally distributed variable with mean 79.3 kg and standard deviation 18.8 kg?
18. A Normal probability distribution
19. In a standard Normal distribution, the range of values of z is from
20. A single numerical value used as an estimate of a population parameter is known as
21. An impossible event has a probability of
22. Which Excel function gives you the likelihood of chancing on an observed Y or less for a Normally distributed variable with a mean 0 and standard deviation 1?
23. The variance of a sample of size 60 from a population is 48.7. The variance of the population
24. The z-score for a measurement or test that follows the standard Normal distribution
25. The function that defines the probability distribution of a continuous random variable is a
26. The standard deviation of all possible sample means from the same population is called the
27. The center of a Normal curve
28. The uniform probability distribution can be used to test the randomness of
29. The probability density function for a uniform distribution ranging between 2 and 6 is
30. As the sample size becomes larger, the sampling distribution of the sample mean approaches a
31. The sample statistic s is the point estimator of

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32. Which of the following is NOT a characteristic of the Normal probability distribution [or choose (e)]?
33. The mean of the standard Normal probability distribution
34. If the conversion of an observed value is a negative value of Z in a standard Normal distribution, then
35. Parameters are
36. A Normal distribution with a mean of 0 and a standard deviation of 1 is called
37. The sample size is usually smaller than the size of the population. A particular sample mean
38. For a uniform probability density function,
39. As the sample size increases when sampling from a specific population, the
40. The standard deviation of the standard Normal distribution
41. A simple random sample of 28 observations was taken from a large population. The sample mean equaled 50. This sample mean is a
42. The standard deviation of a point estimate is called the
43. A theorem that allows us to use the Normal probability distribution to approximate the sampling distribution of sample means and sample proportions whenever the sample size is large is known as the
44. A statistician needs the value for a standardized Normal deviate, z , below which 0.025 of the population will be expected to lie. What Excel function should she use?
45. The expected value of the sample mean is
46. An event that is certain has a probability of
47. A uniform probability distribution is a continuous probability distribution where the probability that the random variable assumes a value in any interval of equal length is
48. A random sample is
49. The probability distribution of the sample mean is called the
50. Which of the following is NOT a characteristic of Normal probability distributions?
51. The sample mean is the point estimator of

