PROBABILITIES AND STATISTICAL POWER

The following scores represent a population.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

1. Produce a frequency distribution. Describe the shape.

2. Identify all possible samples of size 2 that could be selected WITH REPLACEMENT.

3. Enter the list of the means of the samples you identified for the previous question into a new R data frame. Create a frequency distribution. Describe the shape of this distribution.

4. What is the mean and standard deviation of the population and the sampling distribution. Are they the same or different? Explain what these results mean.

5. If we randomly selected a sample, what is the probability of getting a mean within 2 points of the population value?