Name _____ Date _____ Class _____

WISE Sampling Distribution of the Mean Tutorial
Exercise 1 Review Questions

1. As you increase the sample size of a random sample, the standard error of the mean:

○   increases.

○   decreases.

○   remains the same.

○   cannot be determined from the above information.

2. As you increase the sample size of a random sample, the sample mean:

○   becomes more accurate.

○   becomes less accurate.

○   remains the same.

3. As you increase the sample size for a random sample, the shape of the sampling distribution of the mean:

○   becomes more wide and flat.

○   becomes more skewed.

○   remains the same.

○   approaches normal.

4. True or False? The standard deviation of a sampling distribution of means is smaller than the standard deviation of the population when the sample size is 2.

○   True.

○   False.

5. Imagine we measured the height of all the male students at a particular college. We found that the average height of men at this school was 70 inches (5'10") with a standard deviation of 2 inches and the distribution is approximately normal in shape. If we were to randomly select one male student from this college, what is the probability that this student is 73 inches (6'1") or taller?

○   <0.001.

○   0.067.

○   0.154.

6. Still think about the same college in the previous question. Imagine we selected 16 male students at random. What is the probability that the average height of these 16 male students is 73 inches or taller?

○ <0.001.

○ 0.067.

○ 0.154.

7. Imagine that you took a sample of male students from the college in the prior questions and found a mean height of 68 inches. For which of the sample sizes below would you find this most surprising.

○ $N = 10$.

○ $N = 50$.

○ $N = 100$.

○ N does not matter.