

1. My distribution should be similar to others' distributions who also collect random samples from this population, but it is likely not exactly the same since it's a random sample.

- ☒ True
- ☐ False

 Correct

2. For the confidence interval to be valid, the sample mean must be normally distributed and have standard error $\frac{s}{\sqrt{n}}$. Which of the following is **not** a condition needed for this to be true?

- ☐ The sample is random.
- ☐ The sample size, 60, is less than 10% of all houses.
- ☒ The sample distribution must be nearly normal.

 Correct


3. What does "95% confidence" mean?

- ☐ 95% of the time the true average area of houses in Ames, Iowa, will be in this interval.
- ☒ 95% of random samples of size 60 will yield confidence intervals that contain the true average area of houses in Ames, Iowa.
- ☐ 95% of the houses in Ames have an area in this interval.
- ☐ 95% confident that the sample mean is in this interval.

 **Correct**

4. What proportion of 95% confidence intervals would you expect to capture the true population mean?

- ☐ 1%
- ☐ 5%
- ☒ 95%
- ☐ 99%

 **Correct**


5. What is the appropriate critical value for a 99% confidence level?

- ☐ 0.01
- ☐ 0.99
- ☐ 1.96
- ☐ 2.33
- ☒ 2.58

 Correct

6. We would expect 99% of the intervals to contain the true population mean.

- ☒ True
- ☐ False

 Correct
