Group Member Names: _____

If you have group members who collaborated but were not logged into the Zoom session, please note in the submission comments how they collaborated on the learning activity.

Here are some problems to help you get comfortable working with the t-distribution! For each problem, **include a sketch** with the t value on the horizontal axis and the corresponding shaded and labeled area. Use the **notation** on page 144 of the Lecture Guide to label your critical values.

1. What is the t critical value for a 90% confidence interval for μ for a sample of size 17?

2. What is the t critical value for a 99% confidence interval for μ for a sample of size 17?

3. Answer the following based on your results for Problems #1 and #2: When the confidence level **increases**, we expect the t critical value to be _____ (larger/smaller). This means that the width of our confidence interval will _____ (increase/decrease).

4. What is the t critical value for a 99% confidence interval for μ for a sample of size 31?

5. Answer the following based on your results for Problems #2 and #4: When the confidence level stays the same and **sample size increases**, we expect the t critical value to be _____ (larger/smaller). This means that the width of our confidence interval will _____ (increase/decrease).

6. Find the **approximate** t critical value for a 95% confidence interval for μ for a sample of size 84. Use the **t-table** (not a calculator). See Example 9.6 Part B. on page 145 of your lecture notes as a guide.

Before you leave the Zoom session today, check to see if you have the `invT` function in your TI calculator. If you do not and would like to have it, come chat with me before you leave class!