Name: _____ GTID: ___

Answer the questions in the spaces provided and put your answer in the **BOX**. Organize work clearly and simplify answers for full credit.

1a. Convert 150° to radians.

1b. Find the angle between 0° and 360° which is coterminal to 780° .



1c. Find the exact value of $\cos(\pi) - \sin(\frac{\pi}{2})$.



1d. State the range of $f(x) = 3\csc(2x)$.



2. Find the six trigonometric values of $\frac{\pi}{6}$. Note: clearly label each answer.

3. Find all values of u so that the given point is on the unit circle $\left(\frac{-1}{3}, u\right)$. Show work for credit.

4. Graph $f(x) = \sin(2x)$ and include all x-values in the range $\left[\frac{-\pi}{2}, \pi\right]$ in your sketch. Label the intercepts and a total of at least **six** points on the curve for full credit.

Note: label any intercepts, label the axes and the curve, and identify and include a total of at least **six** points on your graph for full credit.