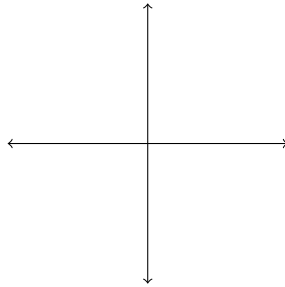


Quiz 1
Due: 23 January 2024

Answer the questions in the spaces provided. **Show all of your work and circle the answer you would like to have graded for each question.**

Name: _____

- (10 points) 1. On the axes provided below, draw a 120° angle in standard position **and** label all of the following: each axis, the quadrants, initial side, terminal side, angle, and vertex.



- (10 points) 2. Do each of the following:

a.) Convert $-\frac{3\pi}{4}$ radians to degrees. Give your answer as a **positive** angle.

b.) Convert -150° to radians. Give your answer as a **positive** angle **greater than** 2π .

- (10 points) 3. Camille just installed a sprinkler in her garden that sprays water evenly over a distance of 4 feet. It can rotate a full 360° , or it can be set to rotate only a fixed radian measure per day. She wants to ensure exactly 24 square feet of ground is watered each day.
- a.) To what angle should she adjust the sprinkler?
 - b.) On this setting, will the entire garden have been watered after two days?

- (10 points) 4. The diameter of Earth is about 7,920 miles at the equator. If you're visiting the city of Macapá in Brazil and are standing on the equator, what are your approximate linear and angular speeds in miles per hour. (You can ignore your height.)