

Unit 5 Vocabulary & Terms

- An angle is in **standard position** when the vertex is at the origin and the initial side lies on the positive side of the x-axis.
- The ray that forms the **initial side** of the angle is rotated around the origin with the resulting ray being called the **terminal side** of the angle.
- An angle is **positive** when the location of the terminal side results from a counterclockwise rotation. An angle is **negative** when the location of the terminal side results from a clockwise rotation.
- Angles are called **coterminal** if they are in standard position and share the same terminal side regardless of the direction of rotation.
- The **reference number** t' associated with a real number t is the shortest distance along the unit circle between the terminal point determined by t and the x-axis. The reference number is always positive.
- The **unit circle** is a circle with a radius of 1 and center at the origin.
- If a central angle in a circle intercepts an arc equal to the length of the radius of the circle, the measure of the angle is **1 radian**.
- An **identity** is an equation that is true for all values of the variable for which the expressions in the equation are defined.
- A function is a **sinusoidal function** if its graph has the shape of $y = \sin(x)$ or a transformation of $y = \sin(x)$.
- The **midline** of the graph of a sinusoidal function is a horizontal line located halfway between the maximum and minimum values.
- The **amplitude** of the graph of a sinusoidal function is the distance from the midline to either the maximum or minimum value. The amplitude is $\frac{1}{2}$ the distance between the maximum and minimum values.
- The **period** of a trigonometric function is the horizontal length of one complete cycle. It is the distance between any two repeating points on the function.
- The **frequency** of a trigonometric function is the number of cycles the function completes in a given interval. The frequency is defined to be the reciprocal of the period.