Vocabulary: Tangent Function



**Vocabulary**

* Asymptote – a line that a curve approaches as one of the variables goes to infinity.
* Odd function – a function whose graph is symmetric about the origin.
* If (*x*, *y*) lies on the graph of an odd function, then (–*x*, –*y*) also lies on the graph.
* Period – the length of the interval that repeats in a function.
* A function whose values repeat in regular intervals is *periodic*.
* For example, tan(*θ*) is periodic with a period of 180°, or ** radians.
* Radian – a unit of angle measure, such that one full rotation equals 2** radians.
* Because 1 rotation (360°) = 2** radians, it follows that ** radians = 180°, and
1 radian = , or about 57.3°.
	+ If a central angle of a circle measures 1 radian, it intercepts an arc that is the same length as the radius of the circle.

***θ***

**(cos(*θ*), sin(*θ*))**

***x***

***y***

**1**

* Reference triangle – a right triangle formed by a perpendicular segment from the terminal ray of an angle *θ* in standard position to the *x*-axis.
* For example, the triangle to the right is the reference triangle for angle *θ*.
* Tangent – in a right triangle, the length of the leg opposite angle *θ* divided by the length of the leg adjacent to angle *θ*: tan(*θ*) = .

***θ***

**(cos(*θ*), sin(*θ*))**

***y***

***x***

**1**

* If *θ* is in *standard position*, with its vertex at the center of a unit circle on the coordinate plane, then tan(*θ*) =  = .
* Trigonometric function – a function of an angle given as the ratio of the sides of a right triangle that contains the angle.
* Unit circle – a circle with a radius of 1.