1. Find the values of the other five trig functions for the acute angle θ if cos θ = .
2. Find the exact values of the six trig functions of θ if θ is in standard position and the terminal side of θ is in the third quadrant and bisects the quadrant.
3. Use a formula for negatives to find the value of sec (-180).
4. Verify the identity by transforming the left-hand side into the right-hand side.

sin(-x) sec(-x) = - tan(x)

1. Find y by referring to the graph of the trig function.

As x ( )- , csc x y

1. Refer to the graph of y = sin x to find the separate values of x in the interval [0, 4π] that satisfy the equation sin x = -1.
2. Approximate to the nearest 0.1 all angles θ in the interval [0360that satisfy the equation

sin θ = 0.7584.

1. Approximate to the nearest 0.1R all angles θ in the interval [0that satisfy the equation

sec θ = 1.6024.

1. Suppose a robot has a straight arm 18 inches long that can rotate about the origin in a coordinate plane. If the robot’s hand is located at (18,0) and then rotates through an angle of 60what is the new location of the hand?
2. Find the period of the equation y = 3 tan x.
3. Find the period of the equation y = cot (x + ).
4. Find the period of the equation y = -3 tan (.
5. Find the period of the equation y = csc 2πx.
6. Given that α = 45 and b = 20 in triangle ABC with γ=90find the value of a.
7. Given that a = 3 and b = 3 in triangle ABC with γ=90find the value of c.
8. Find the angle that is complementary to θ = 159’5”.
9. If a circular arc of the length s = 15 cm subtends the central angle θ = 3 on a circle, find the radius of the circle.
10. If a tornado has a core diameter of 250 feet and maximum wind speed of 150 mi/hr (or 220 ft/sec) at the perimeter of the core, approximate the number of revolutions the core makes each minute.