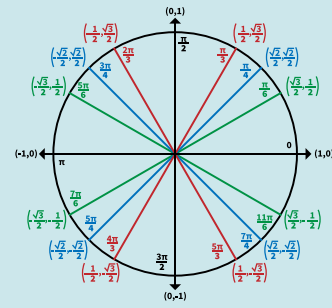


# Unit Circle Worksheet



Why is the tangent of  $180^\circ$  equal to 0?

If a wind turbine blade rotates  $90^\circ$  every 5 seconds, how many radians does it rotate in 20 seconds?

A ramp makes an angle of  $30^\circ$  with the ground. If the ramp is 10 meters long, find its horizontal length using the cosine function.

If  $\sin(\theta) = -1/2$ , what are the two possible values of  $\theta$  between  $0^\circ$  and  $360^\circ$ ?

Find the reference angle for  $315^\circ$  and explain how reference angles help in evaluating trigonometric functions