

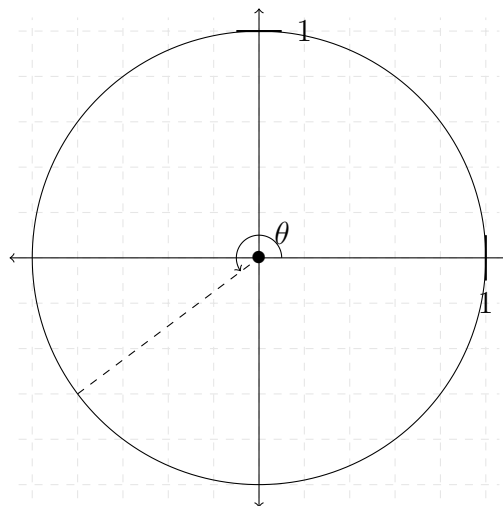
Quick Hit 9

1. For the following questions, use the graph to the right. The light grid lines are in increments of 0.2 (one-fifth) and are provided to help you estimate.

- (a) What are the sine and cosine of the angle  $\theta$  pictured to the right? Give approximate answers to the nearest tenth.

$\sin(\theta) =$                        $\cos(\theta) =$

- (b) Sketch on the unit circle another angle  $\varphi$ , so that  $\sin(\varphi) = \sin(\theta)$ , but so that  $\varphi$  is not  $\theta + 2\pi n$  for any integer  $n$ . What is  $\cos(\varphi)$ ?



2. Find all solutions to  $\cos(2\pi(\theta - 1)) = \frac{\sqrt{3}}{2}$