

You may have correctly determined that the point  $\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$  is where the angle  $\frac{2\pi}{3}$  radians or  $120^\circ$  intersects the unit circle. However, you forgot which coordinate corresponds to which function. The  $x$ -coordinate gives you the value of the cosine function at that angle, and the  $y$ -coordinate gives you the value of the sine function at that angle.