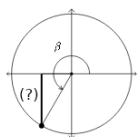




Use the unit circle to evaluate sine and cosine

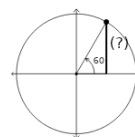
- 1** What is the Y dimension for the unit circle point shown?



A $\cos(\beta)$

B $\sin(\beta)$

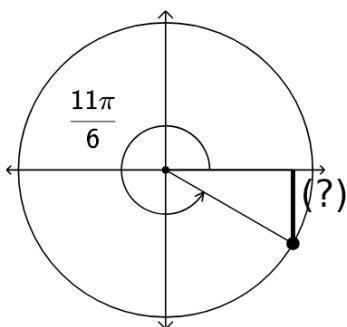
- 2** What is the Y dimension for the unit circle point at 60° ?



A $\sin(60^\circ)$

B $\cos(60^\circ)$

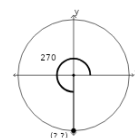
- 3** What is the Y dimension for the unit circle point at $11\pi/6$ radians?



A $\cos\left(\frac{11\pi}{6}\right)$

B $\sin\left(\frac{11\pi}{6}\right)$

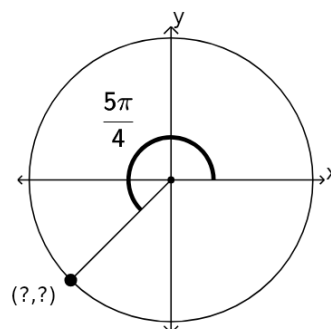
- 4** What are the coordinates of the unit circle point at 270° ?



A $(\cos(270^\circ), \sin(270^\circ))$

B $(\sin(270^\circ), \cos(270^\circ))$

- 5** What are the coordinates of the unit circle point at $5\pi/4$ radians?



A $\left(\sin\left(\frac{5\pi}{4}\right), \cos\left(\frac{5\pi}{4}\right)\right)$

B $\left(\cos\left(\frac{5\pi}{4}\right), \sin\left(\frac{5\pi}{4}\right)\right)$

- 6** 300°

A $(\cos(300^\circ), \sin(300^\circ))$

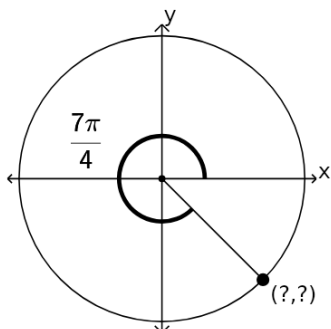
B $(\sin(300^\circ), \cos(300^\circ))$



Use the unit circle to evaluate sine and cosine

7

What are the coordinates of the unit circle point at $7\pi/4$ radians



A

$$\left(\cos\left(\frac{7\pi}{4}\right), \sin\left(\frac{7\pi}{4}\right)\right)$$

B

$$\left(\sin\left(\frac{7\pi}{4}\right), \cos\left(\frac{7\pi}{4}\right)\right)$$

8 135°

A

$$(\cos(135^\circ), \sin(135^\circ))$$

B

$$(\sin(135^\circ), \cos(135^\circ))$$

9

What are the coordinates of the point on the unit circle at $4\pi/3$ radians?

 $\frac{4\pi}{3}$ radians

A

$$\left(\cos\left(\frac{4\pi}{3}\right), \sin\left(\frac{4\pi}{3}\right)\right)$$

B

$$\left(\sin\left(\frac{4\pi}{3}\right), \cos\left(\frac{4\pi}{3}\right)\right)$$

10

Which trig ratios and signs would be correct for this angle?

$$\frac{11\pi}{6} \text{ rad}$$

A

$\cos \rightarrow \text{positive}$
 $\tan \rightarrow \text{negative}$

B

$\cos \rightarrow \text{negative}$
 $\tan \rightarrow \text{negative}$

11

What are the coordinates of the point on the unit circle at $\pi/4$ radians?

 $\frac{\pi}{4}$ radians

A

$$\left(\cos\left(\frac{\pi}{4}\right), \sin\left(\frac{\pi}{4}\right)\right)$$

B

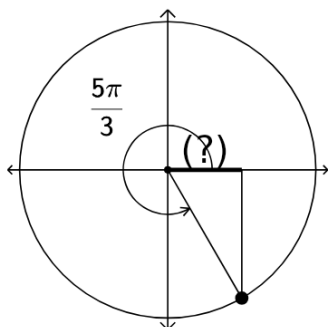
$$\left(\sin\left(\frac{\pi}{4}\right), \cos\left(\frac{\pi}{4}\right)\right)$$



Use the unit circle to evaluate sine and cosine

**12**

What calculation gives the X dimension for the unit circle point at $5\pi/3$ radians?



A

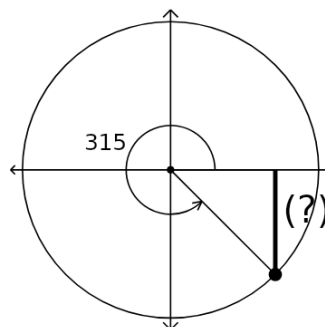
$$\sin\left(\frac{5\pi}{3}\right) = \frac{\sqrt{3}}{2}$$

B

$$\cos\left(\frac{5\pi}{3}\right) = \frac{1}{2}$$

13

What calculation gives the Y dimension for the unit circle point at 315° ?



A

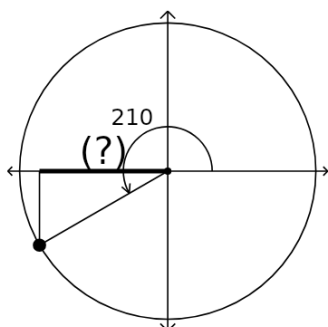
$$\cos(315^\circ) = -\frac{1}{2}$$

B

$$\sin(315^\circ) = -\frac{\sqrt{2}}{2}$$

14

What is the X dimension for the unit circle point at 210° ?



A

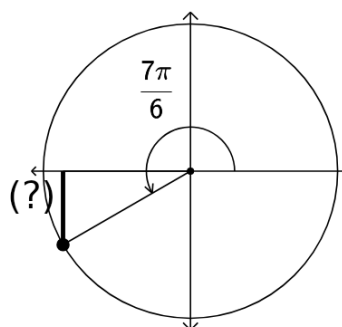
$$-\frac{1}{2}$$

B

$$-\frac{\sqrt{3}}{2}$$

15

What is the Y dimension for the unit circle point at $7\pi/6$ radians?



A

$$-\frac{\sqrt{2}}{2}$$

B

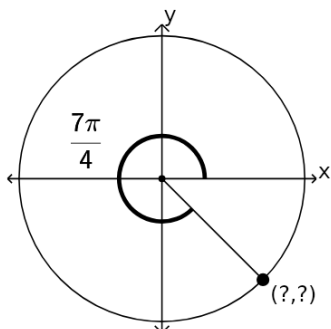
$$-\frac{1}{2}$$



Use the unit circle to evaluate sine and cosine

16

What are the coordinates of the unit circle point at $7\pi/4$ radians



A

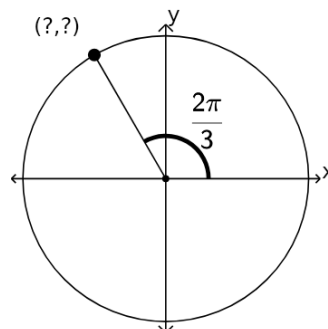
$$\left(\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$$

B

$$\left(\frac{\sqrt{3}}{2}, -\frac{1}{2}\right)$$

17

What are the coordinates of the unit circle point at $2\pi/3$ radians



A

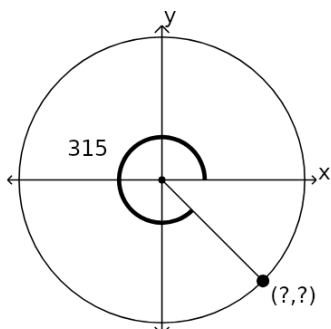
$$\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$$

B

$$\left(-\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$$

18

What are the coordinates of the unit circle point at 315°



A

$$\left(\frac{\sqrt{3}}{2}, -\frac{1}{2}\right)$$

B

$$\left(\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$$