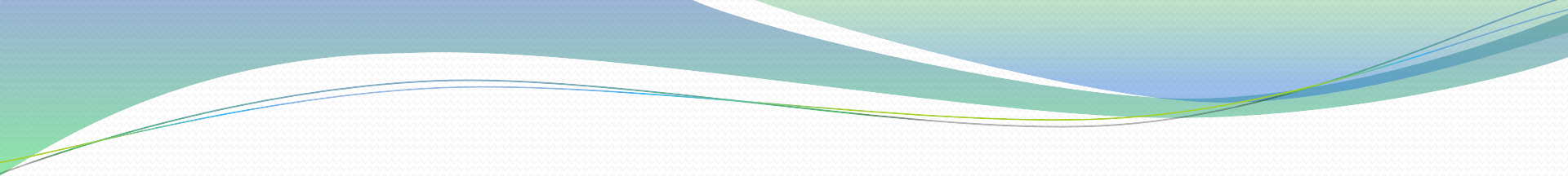


# Trigonométrie

## Série 6

Activités mentales et automatismes en classe de première  
IREM de Clermont-Ferrand

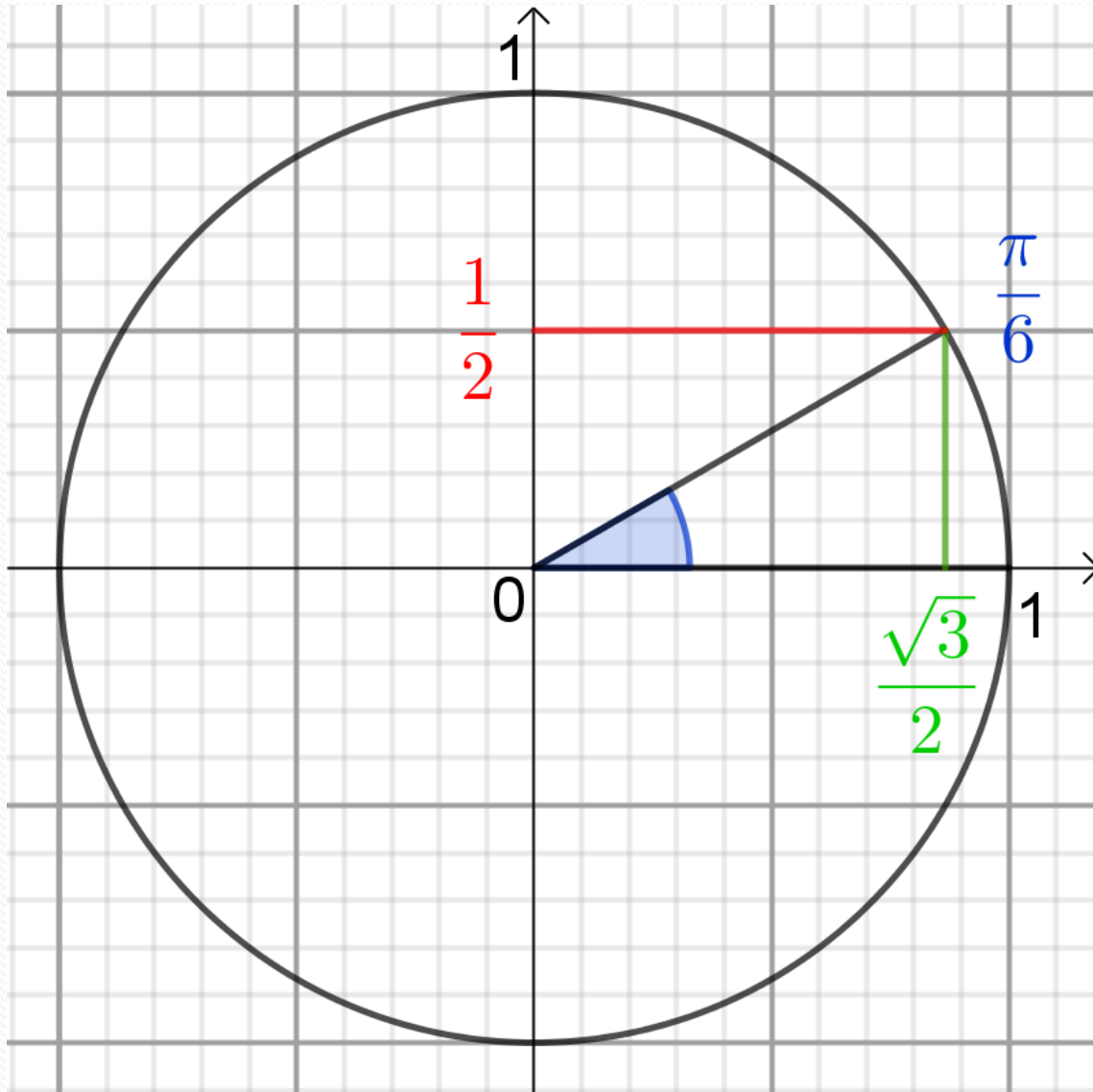


Donner les valeurs  
exactes des sinus et cosinus  
des réels suivants :

## Question 0

$$\frac{\pi}{6}$$

## Question 0



$$\cos\left(\frac{\pi}{6}\right) = \frac{\sqrt{3}}{2}$$

$$\sin\left(\frac{\pi}{6}\right) = \frac{1}{2}$$

# Question 1

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

## Question 2

$$\frac{\pi}{3}$$

## Question 3

$$\frac{3\pi}{2}$$

## Question 4

$$7\pi$$

## Question 5

$$\frac{2\pi}{3}$$

## Question 6

$$\frac{5\pi}{6}$$

## Question 7

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

## Question 8

$$\frac{7\pi}{6}$$

## Question 9

$$-\frac{\pi}{4}$$

## Question 10

$$\frac{5\pi}{3}$$

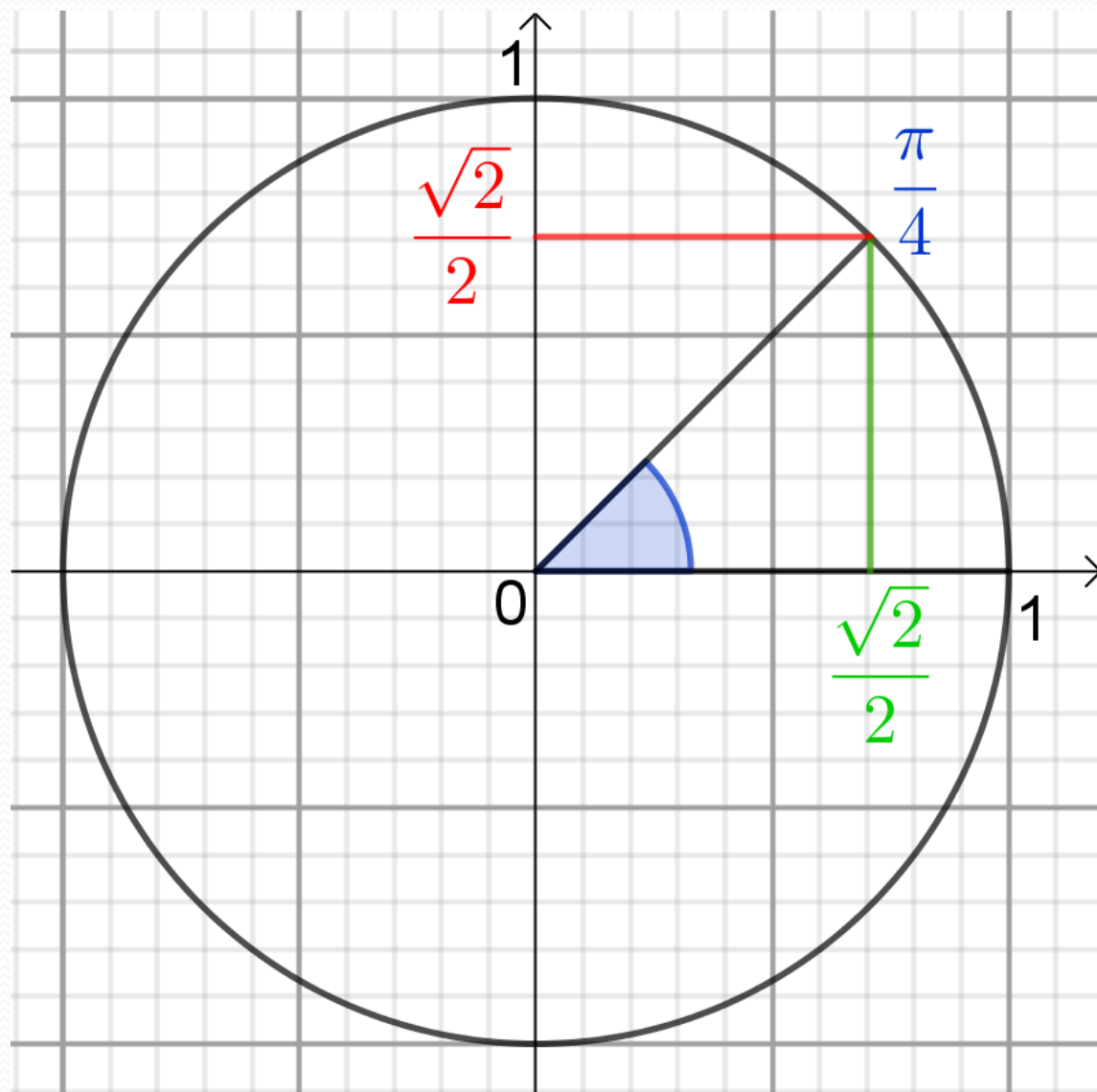
# Correction

Activités mentales et automatismes en classe de première  
IREM de Clermont-Ferrand

# Question 1

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

# Question 1



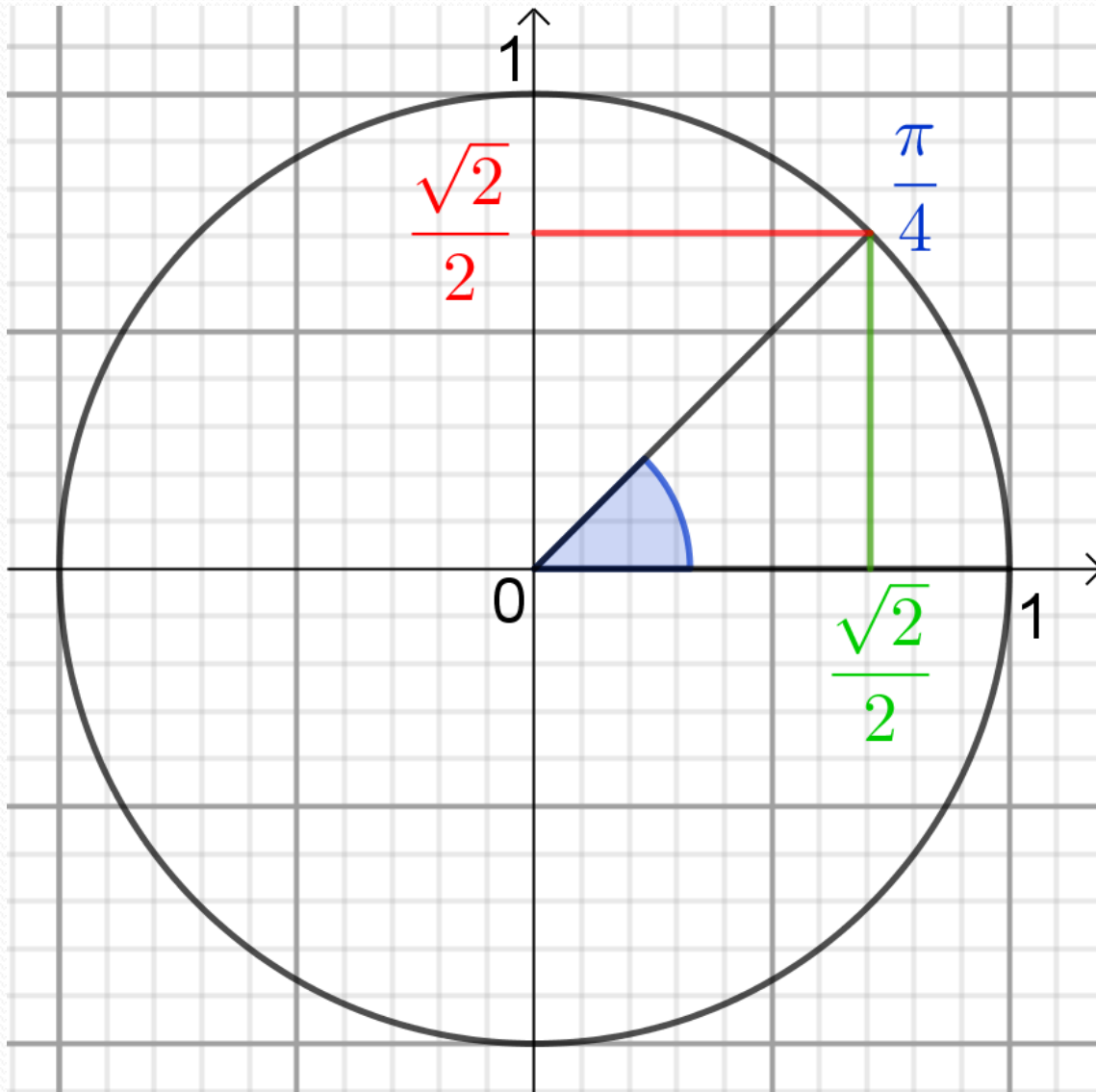
$$\frac{\pi}{4}$$

## Question 1

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

$$\cos\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$$

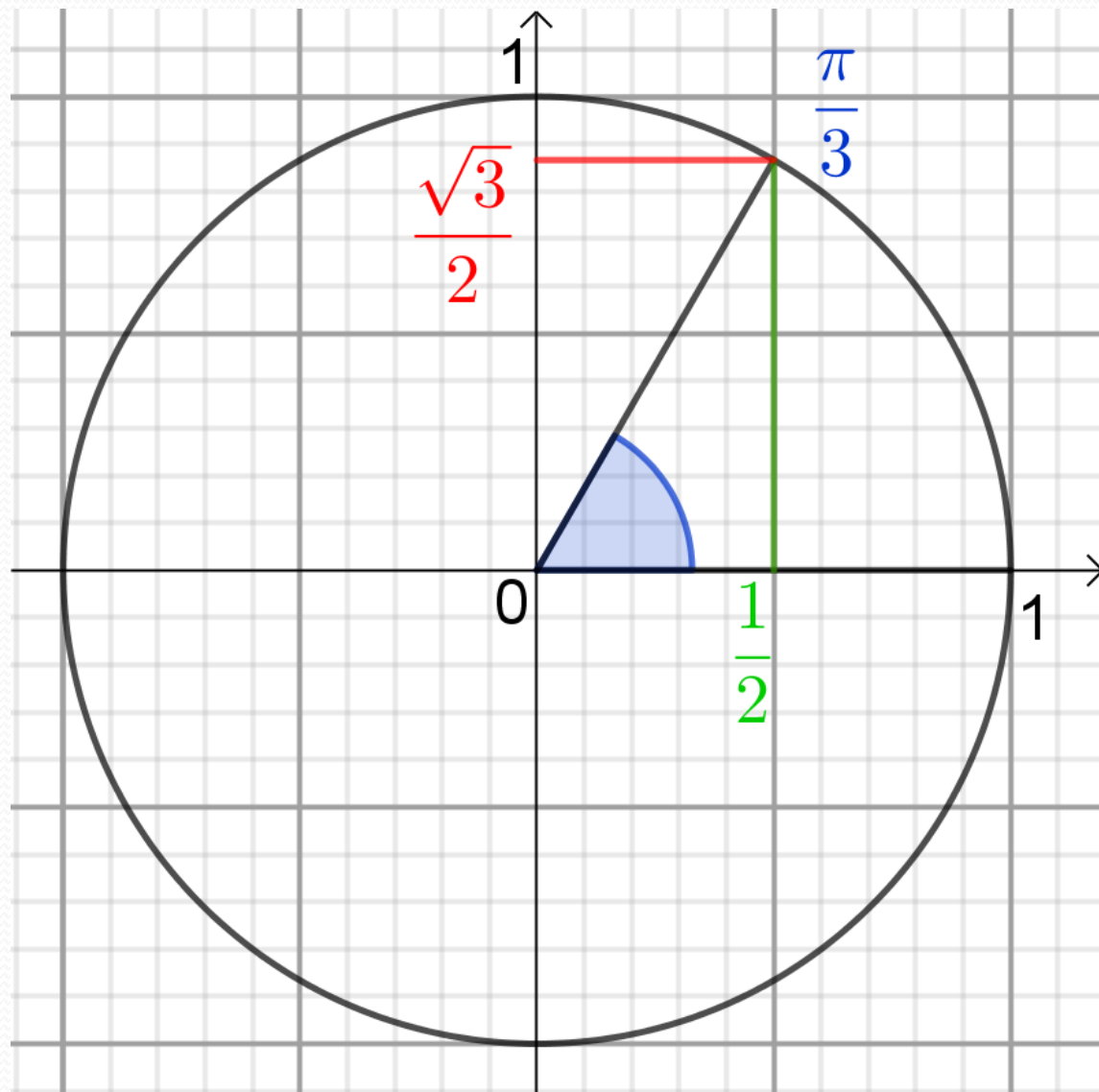
$$\sin\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$$



## Question 2

$$\frac{\pi}{3}$$

## Question 2



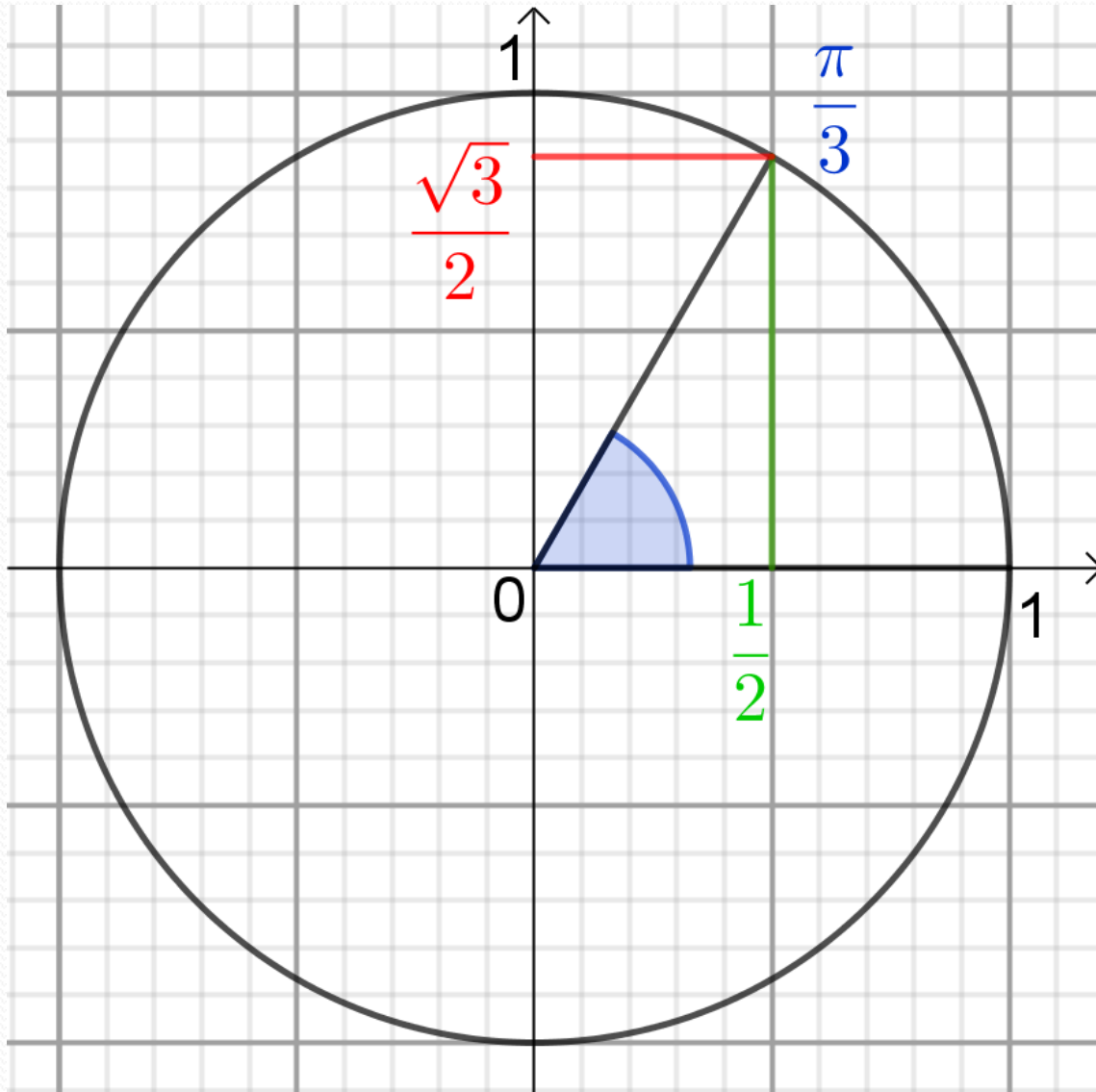
$$\frac{\pi}{3}$$

## Question 2

$$\frac{\pi}{3}$$

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

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

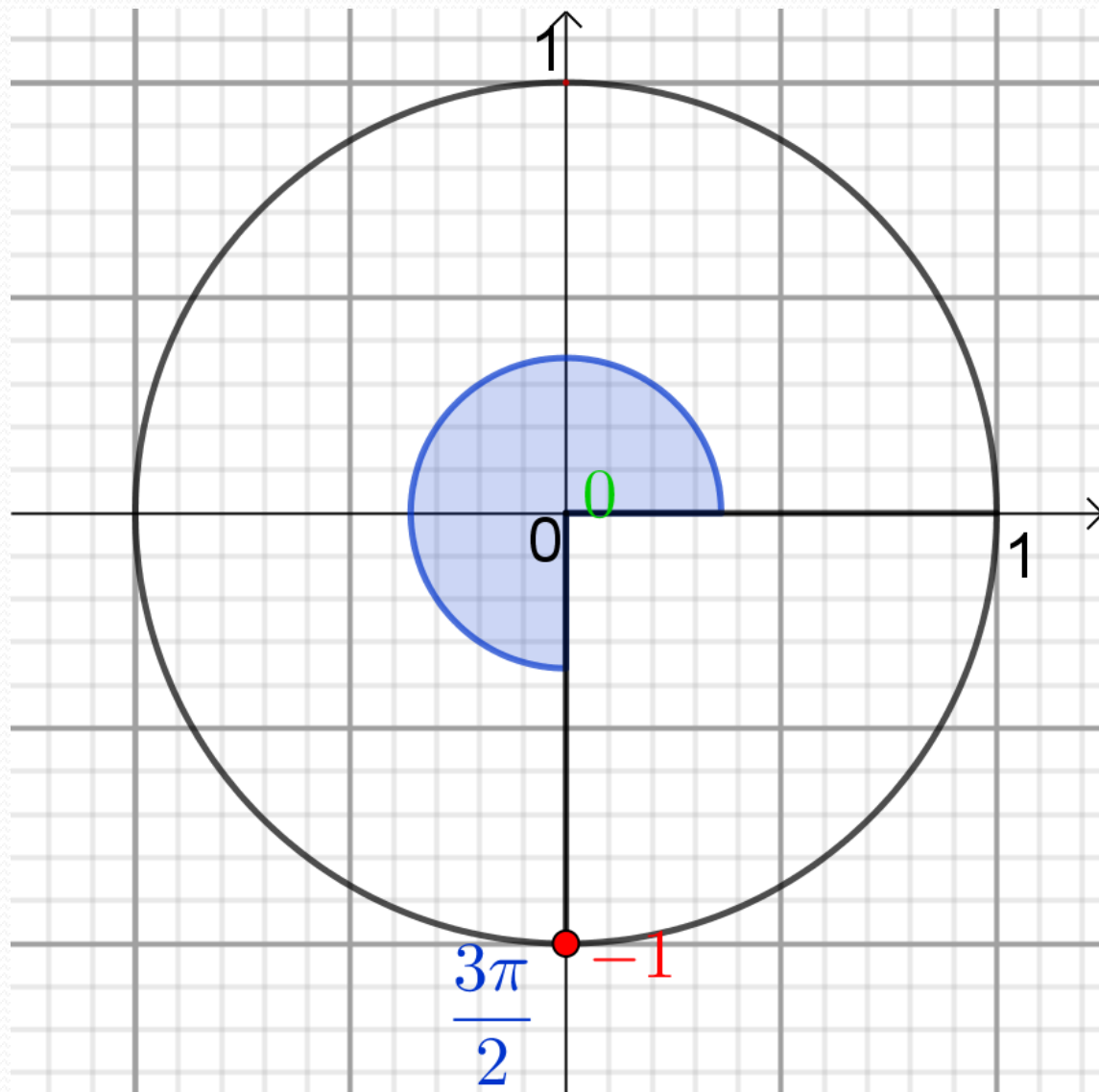


## Question 3

$$\frac{3\pi}{2}$$

## Question 3

$$\frac{3\pi}{2}$$

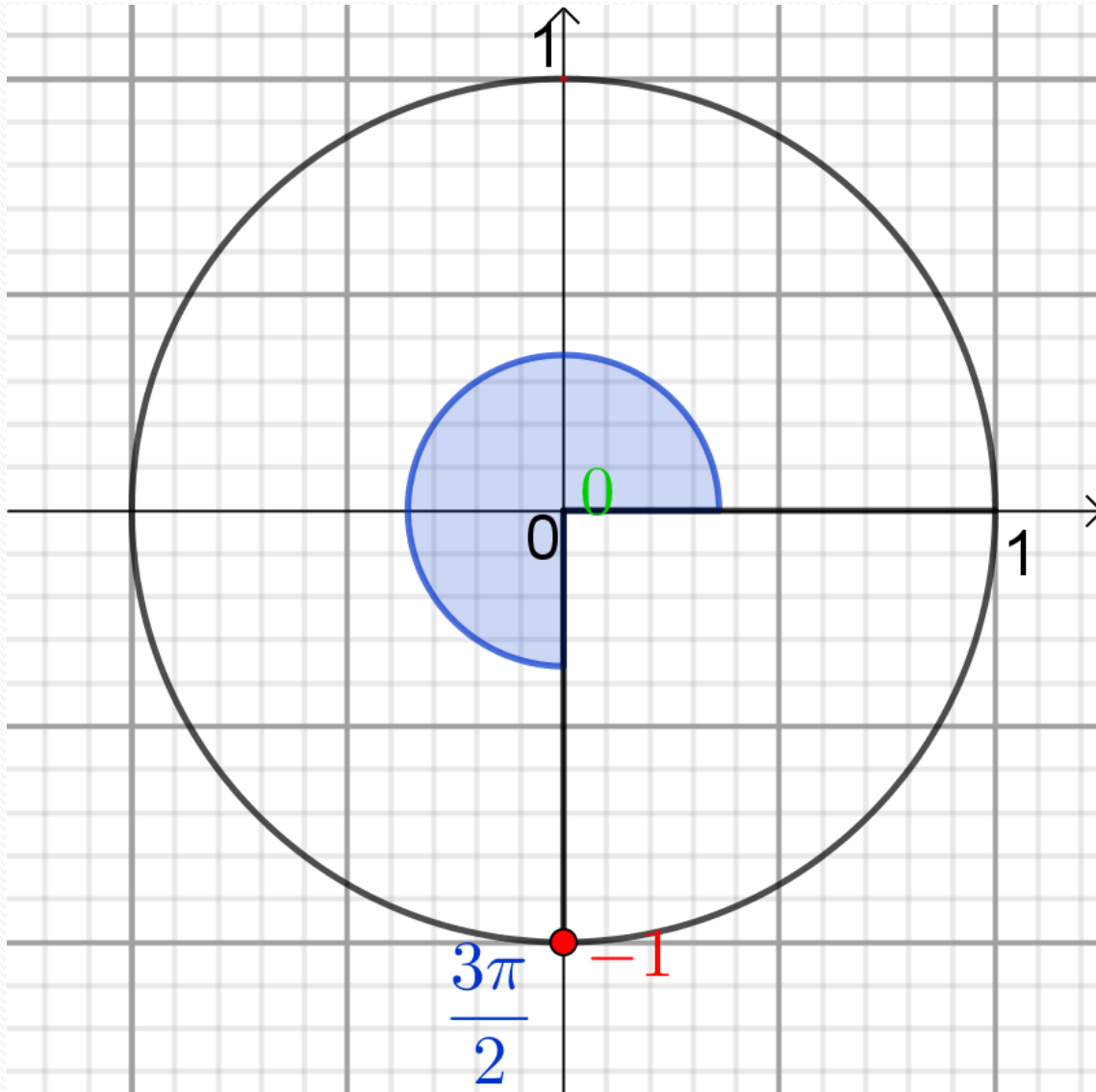


## Question 3

$$\frac{3\pi}{2}$$

$$\cos\left(\frac{3\pi}{2}\right) = 0$$

$$\sin\left(\frac{3\pi}{2}\right) = -1$$

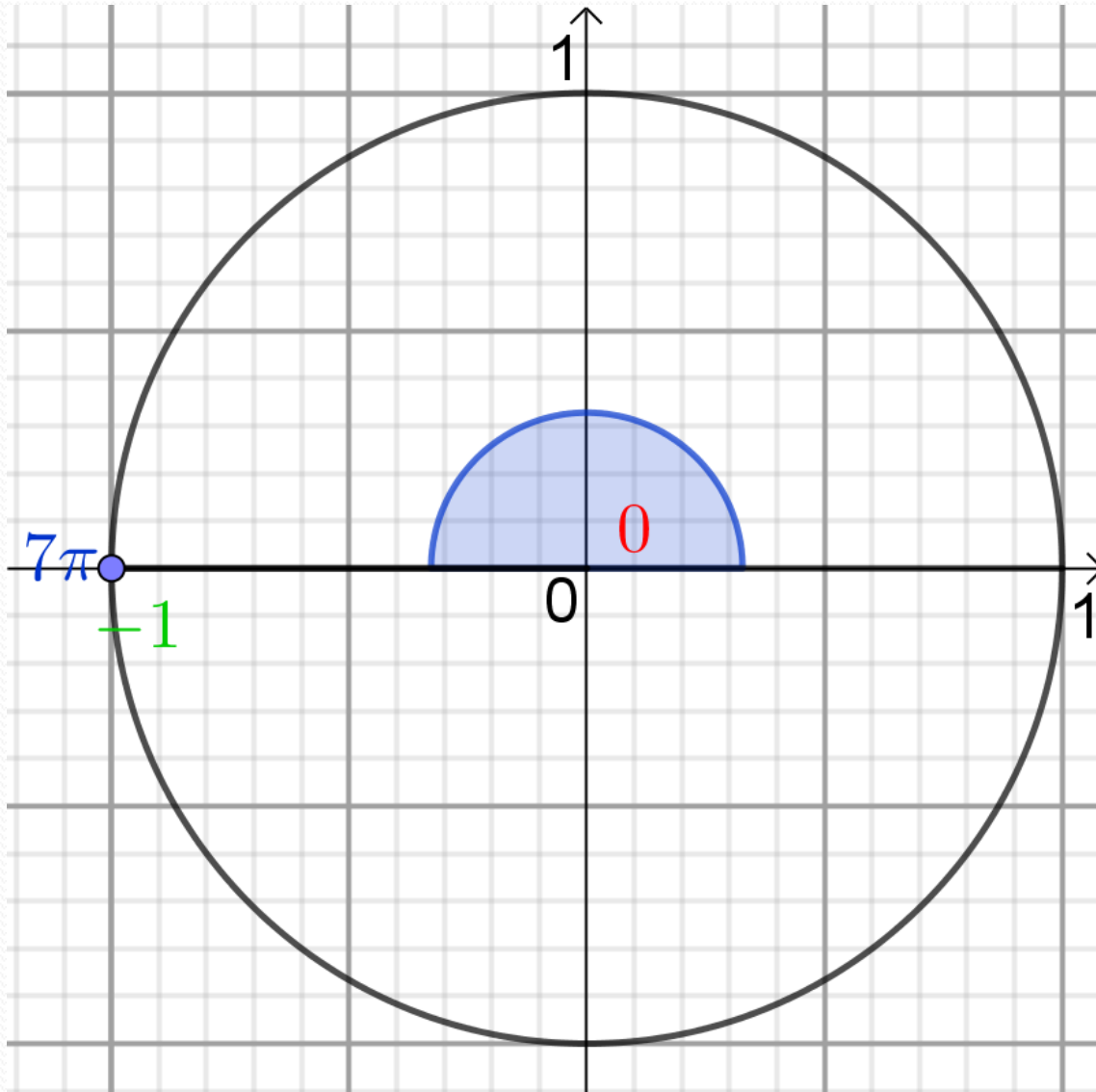


## Question 4

$$7\pi$$

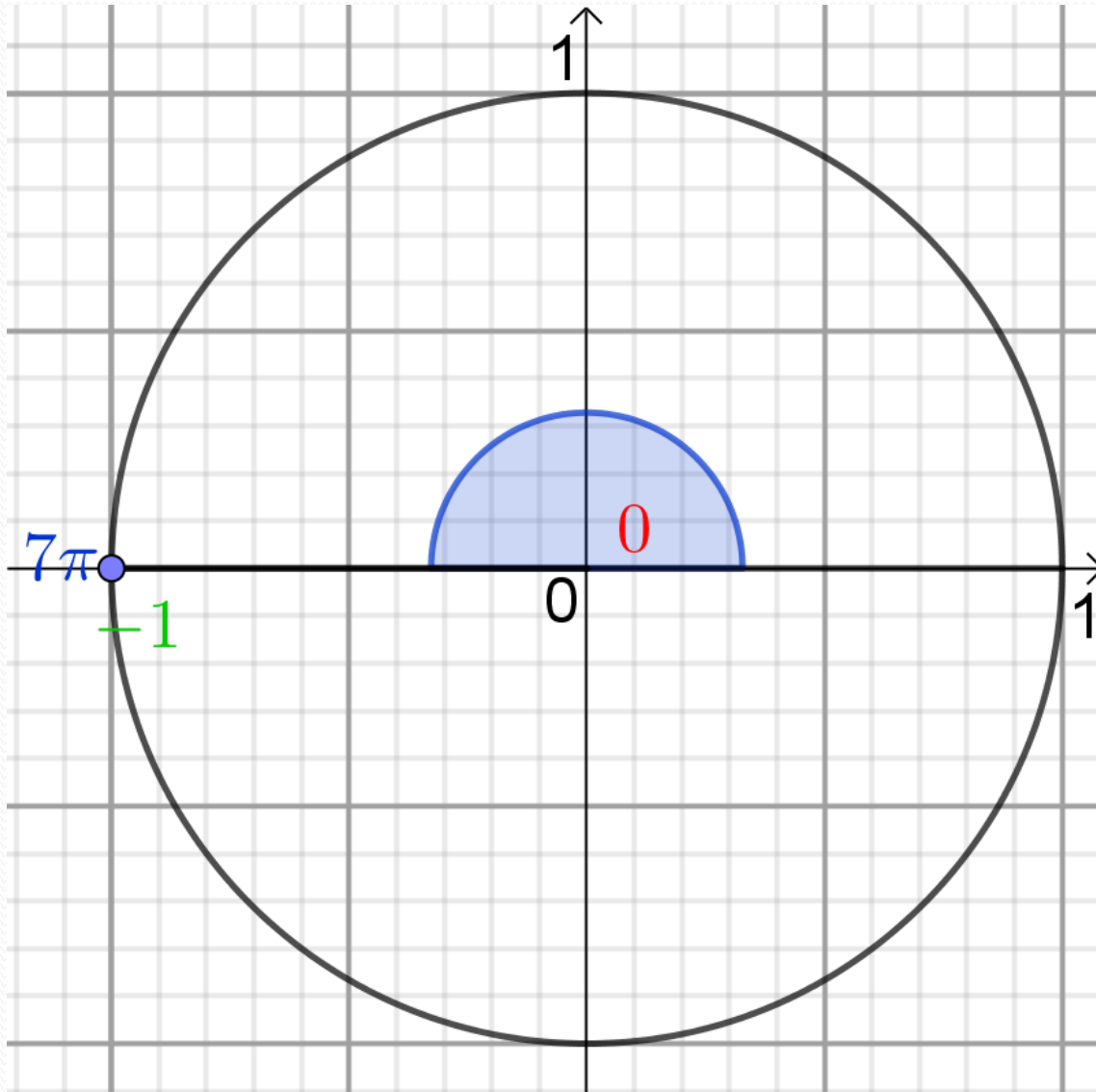
## Question 4

**$7\pi$**



## Question 4

**$7\pi$**



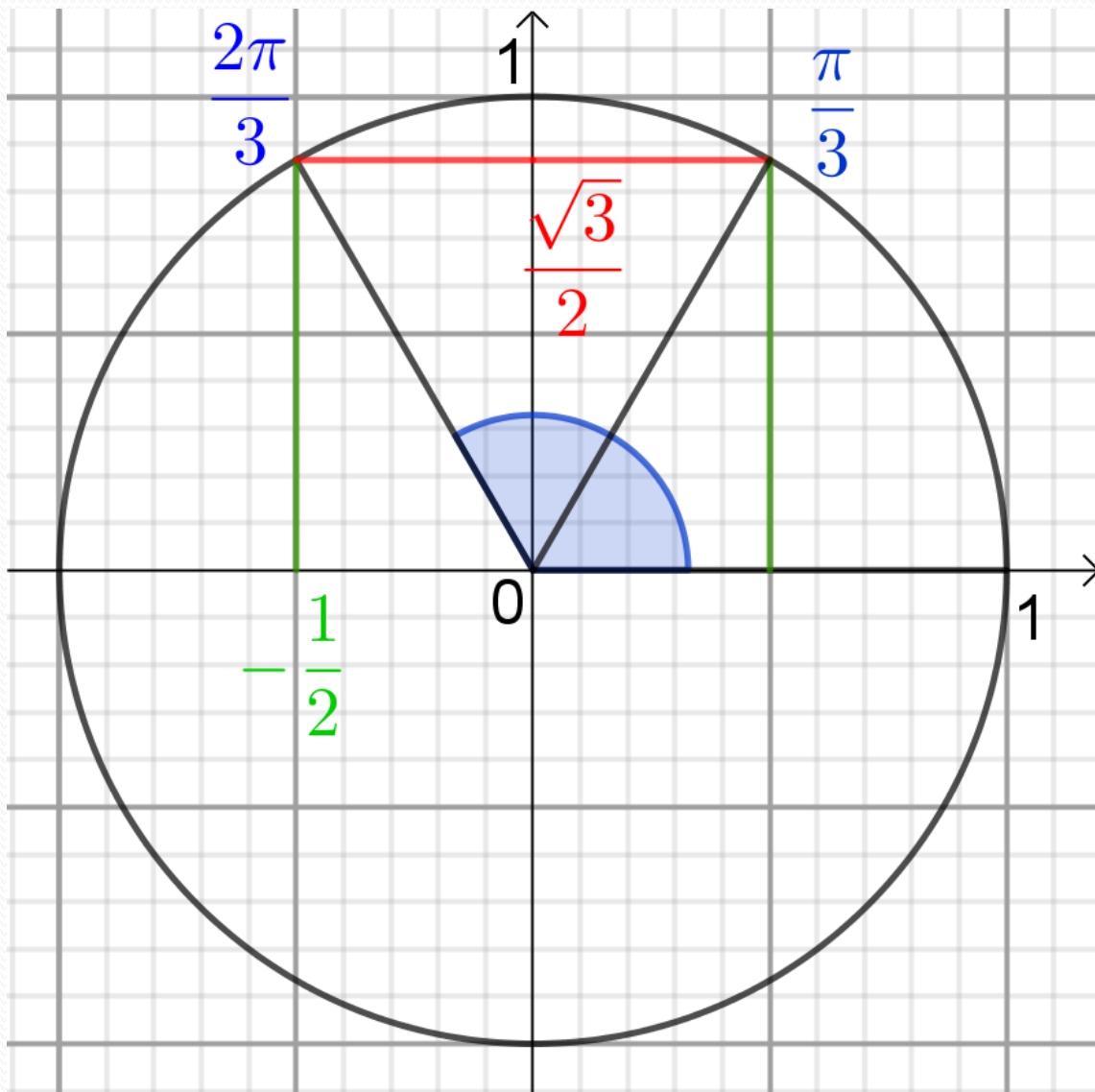
$$\cos(7\pi) = -1$$

$$\sin(7\pi) = 0$$

## Question 5

$$\frac{2\pi}{3}$$

## Question 5



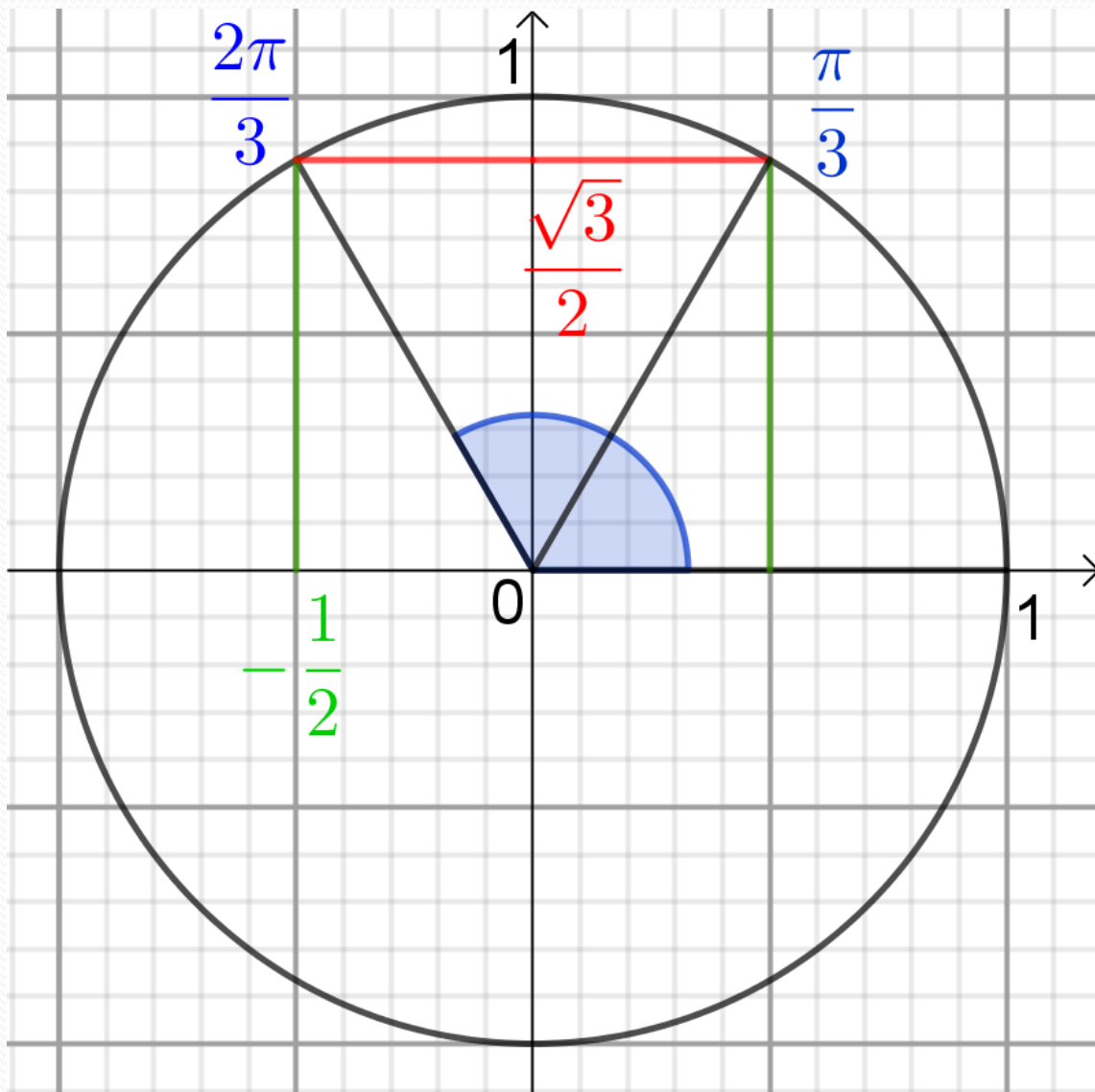
$$\frac{2\pi}{3}$$

## Question 5

$$\frac{2\pi}{3}$$

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

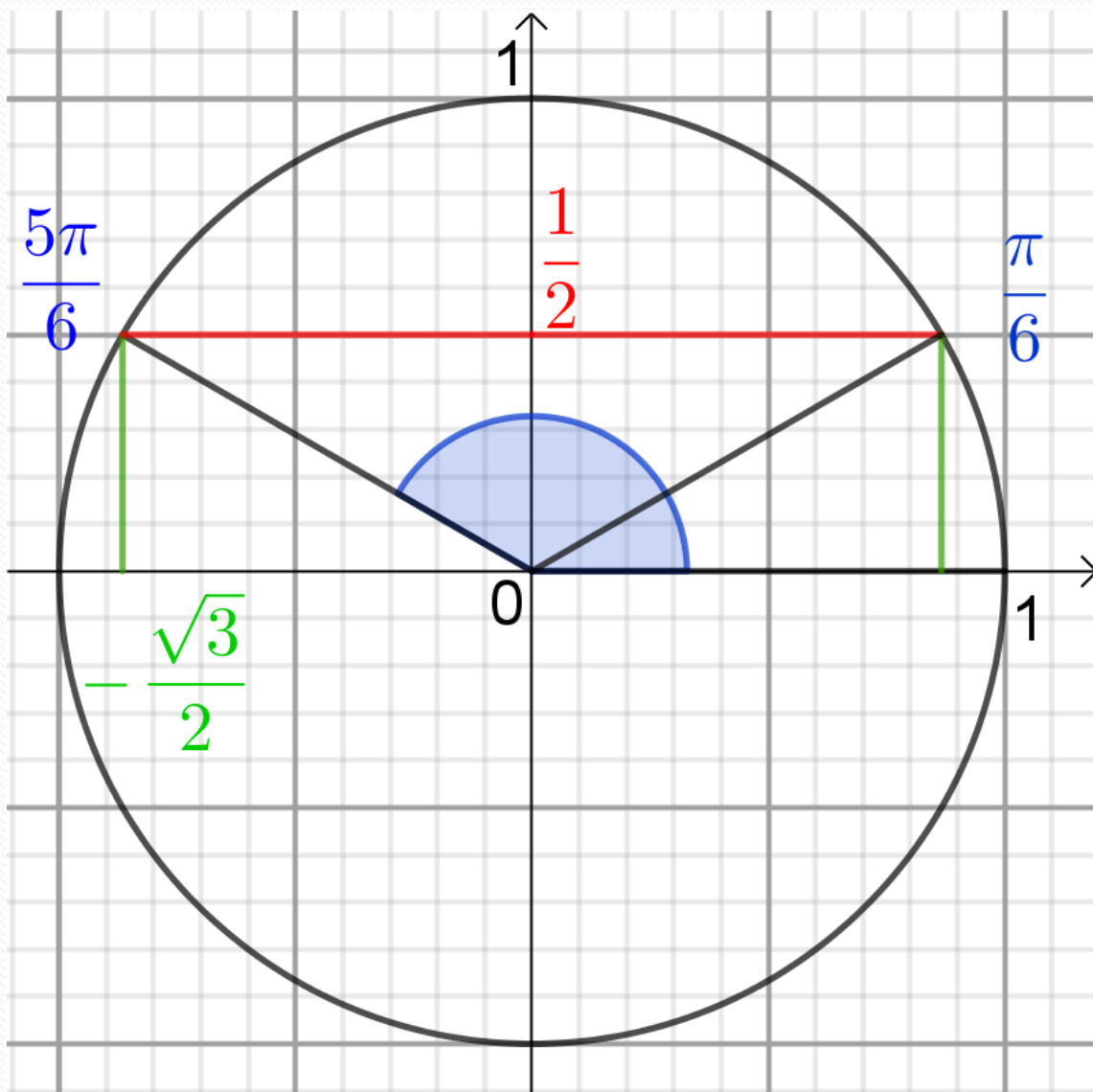
$$\sin\left(\frac{2\pi}{3}\right) = \frac{\sqrt{3}}{2}$$



## Question 6

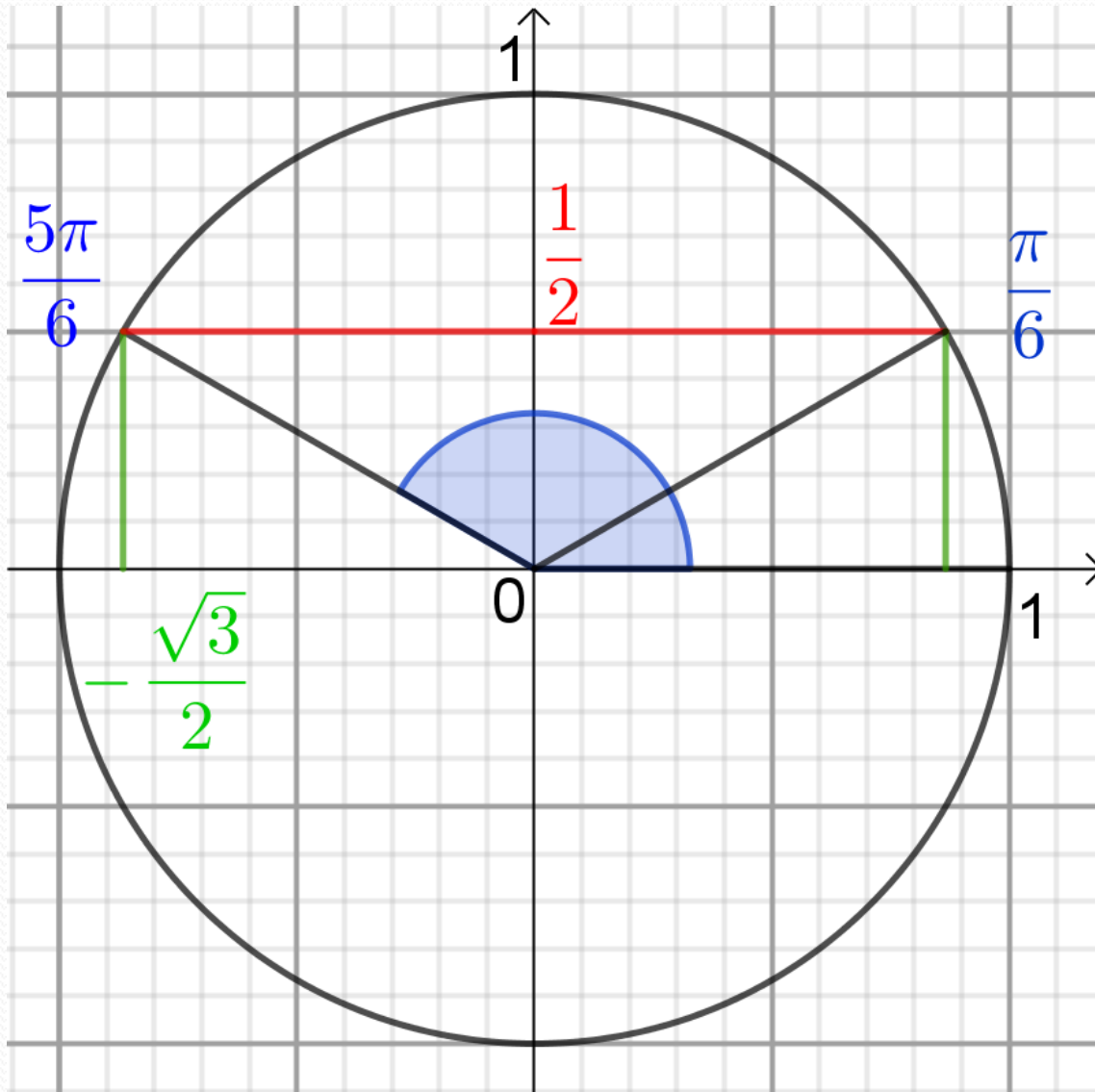
$$\frac{5\pi}{6}$$

## Question 6



$$\frac{5\pi}{6}$$

## Question 6



$$\frac{5\pi}{6}$$

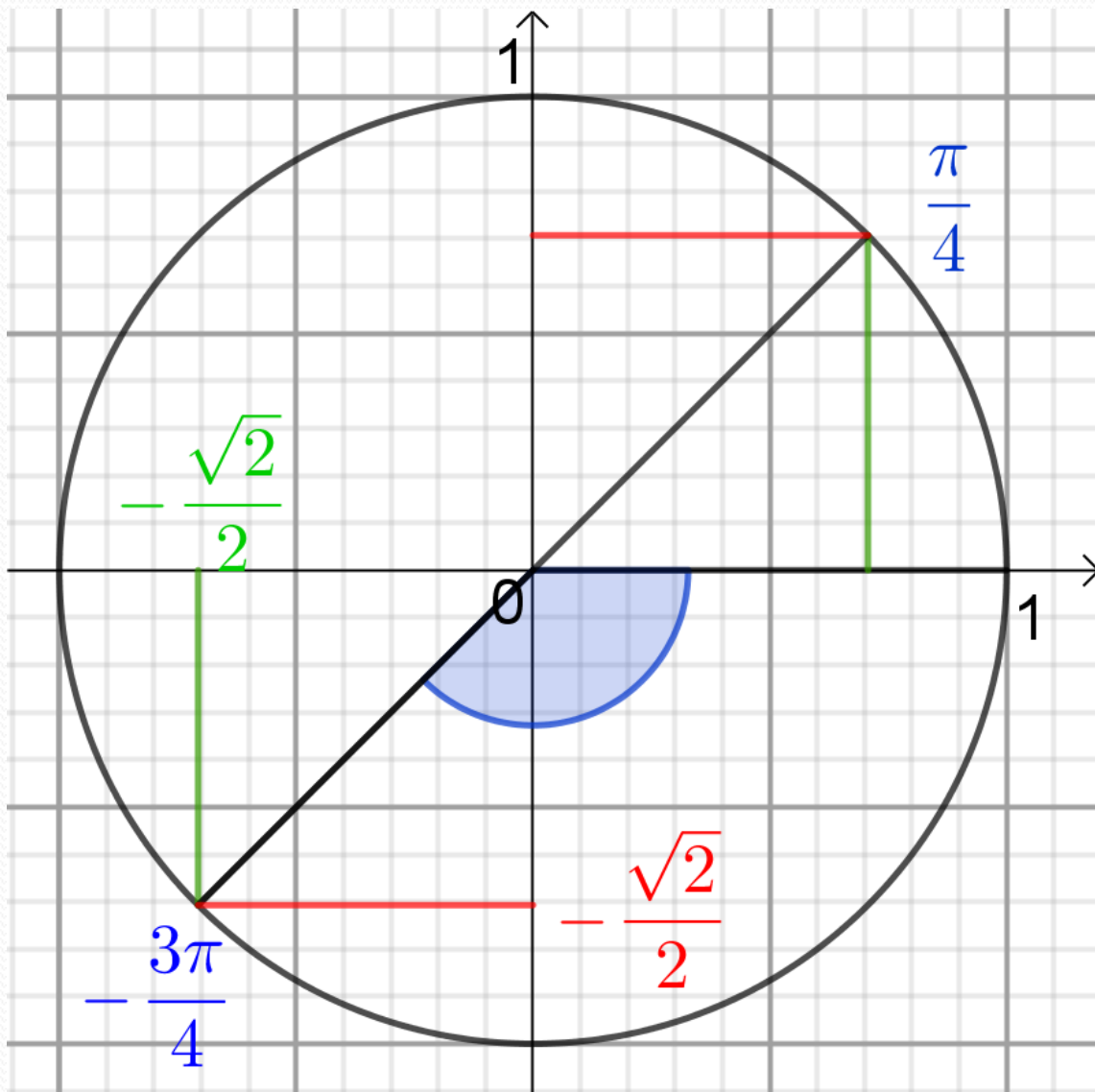
$$\cos\left(\frac{5\pi}{6}\right) = -\frac{\sqrt{3}}{2}$$

$$\sin\left(\frac{5\pi}{6}\right) = \frac{1}{2}$$

## Question 7

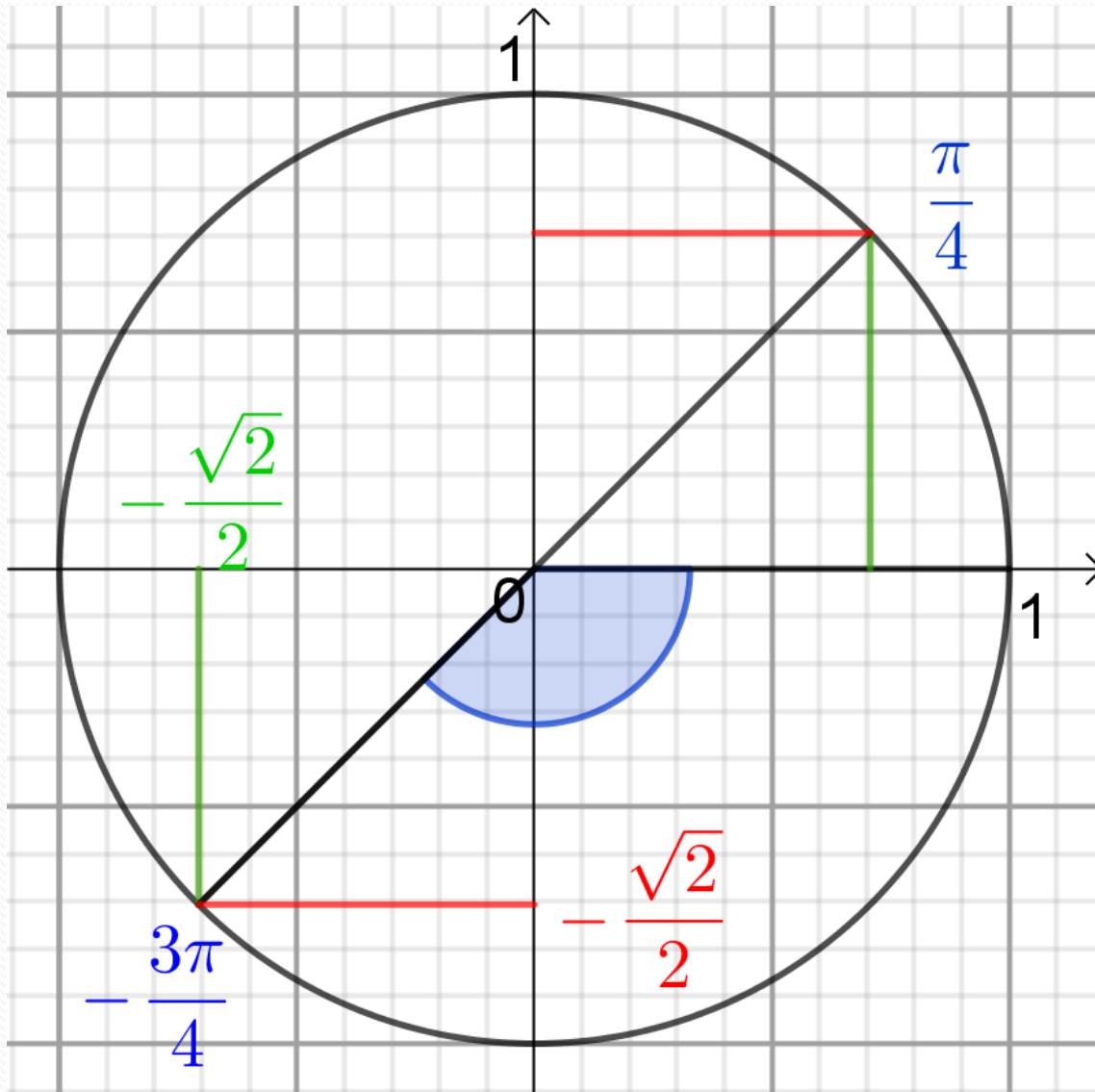
$$-\frac{3\pi}{4}$$

## Question 7



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

## Question 7



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

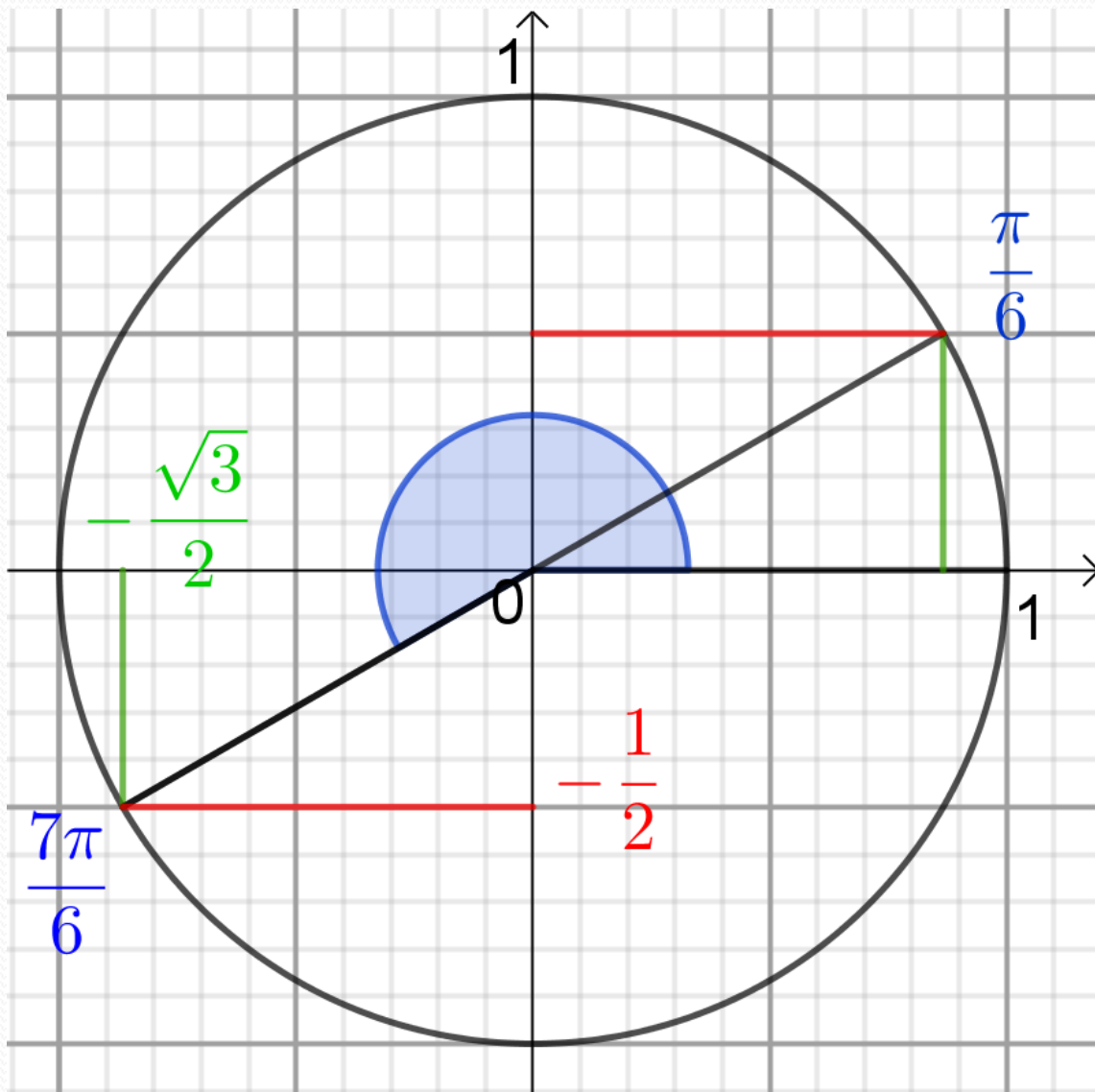
$$\cos\left(-\frac{3\pi}{4}\right) = -\frac{\sqrt{2}}{2}$$

$$\sin\left(-\frac{3\pi}{4}\right) = -\frac{\sqrt{2}}{2}$$

## Question 8

$$\frac{7\pi}{6}$$

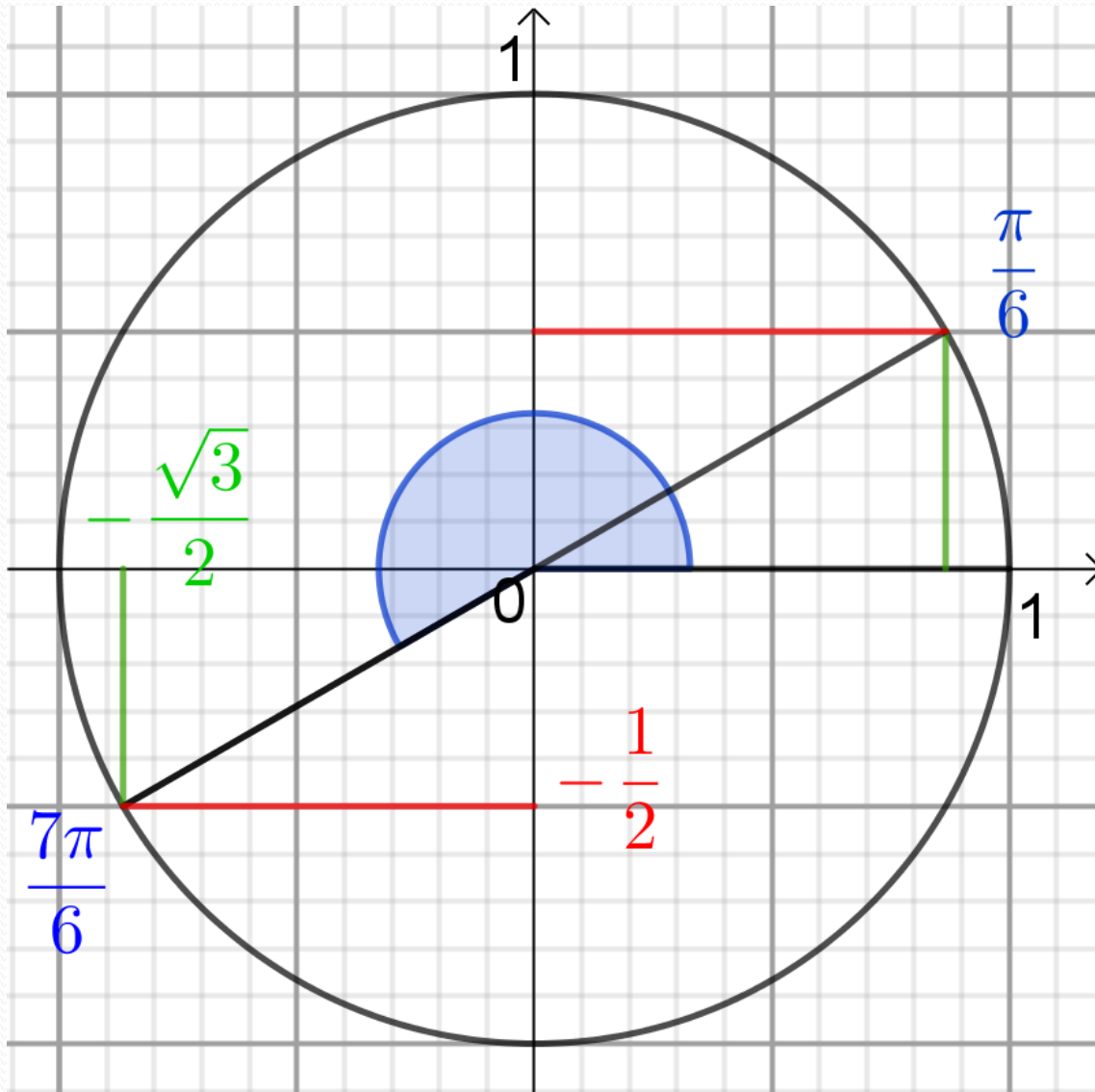
## Question 8



$$\frac{7\pi}{6}$$

## Question 8

$$\frac{7\pi}{6}$$



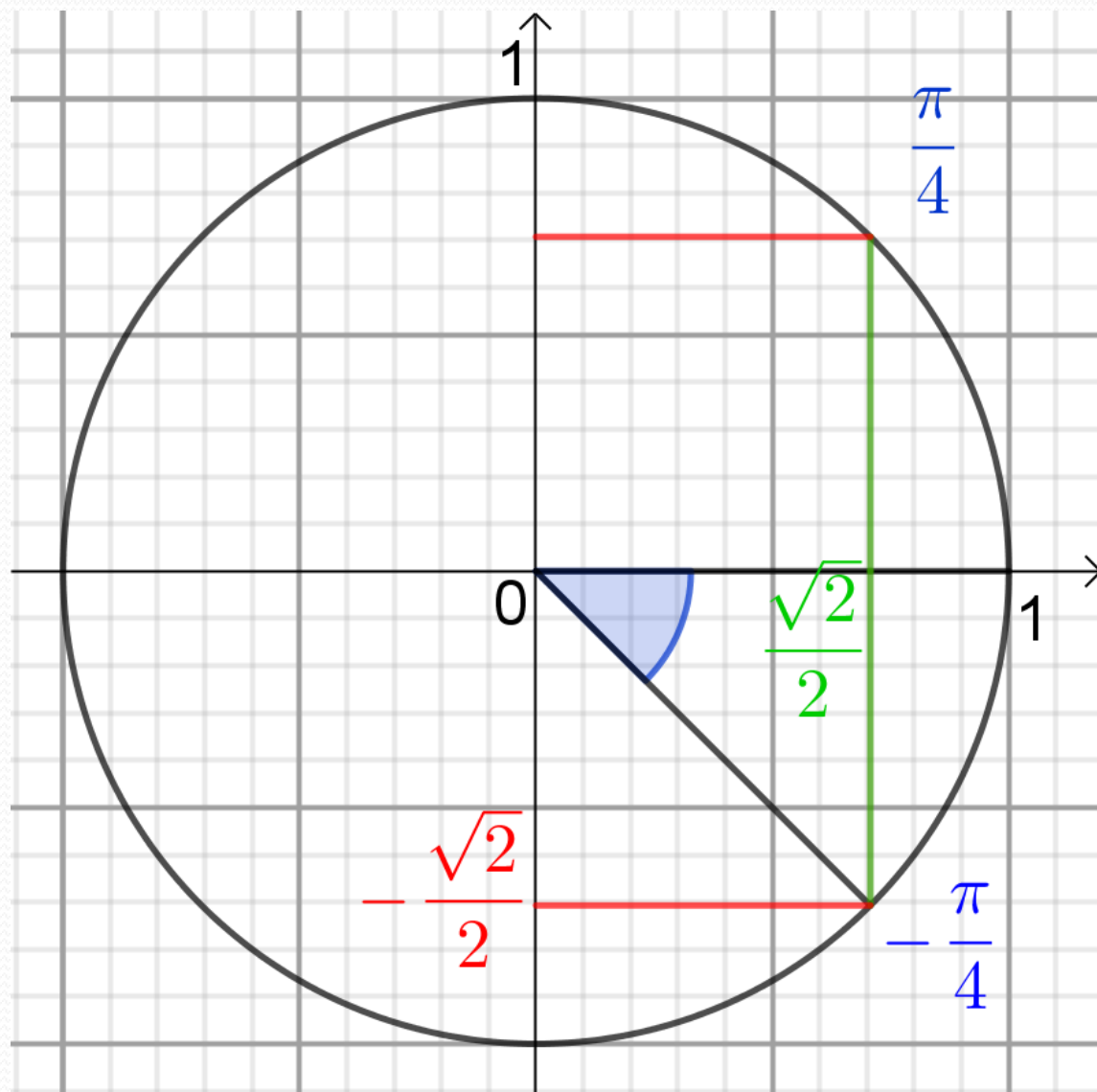
$$\cos\left(\frac{7\pi}{6}\right) = -\frac{\sqrt{3}}{2}$$

$$\sin\left(\frac{7\pi}{6}\right) = -\frac{1}{2}$$

## Question 9

$$-\frac{\pi}{4}$$

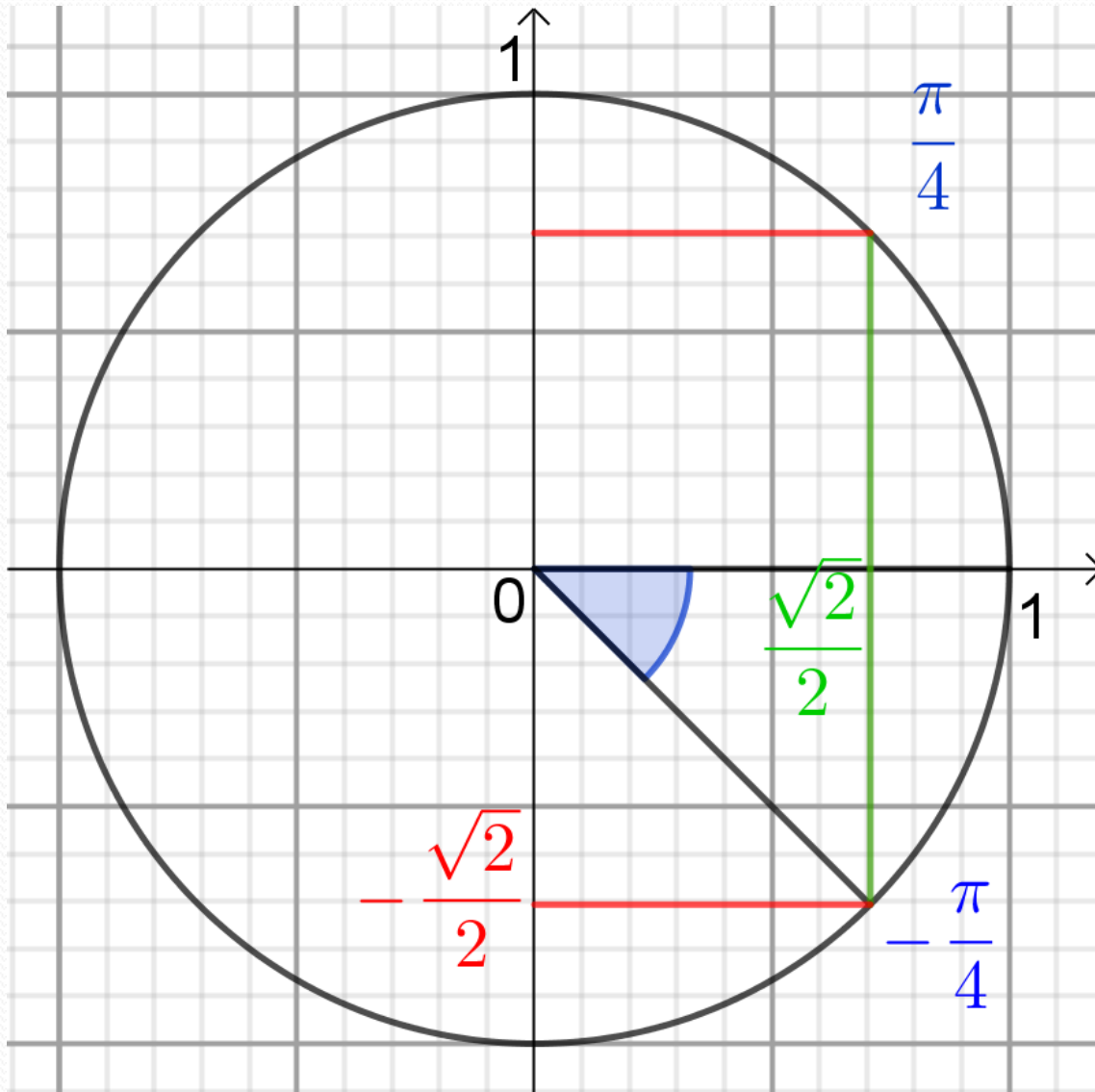
## Question 9



$$-\frac{\pi}{4}$$

## Question 9

$$-\frac{\pi}{4}$$



$$\cos\left(-\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$$

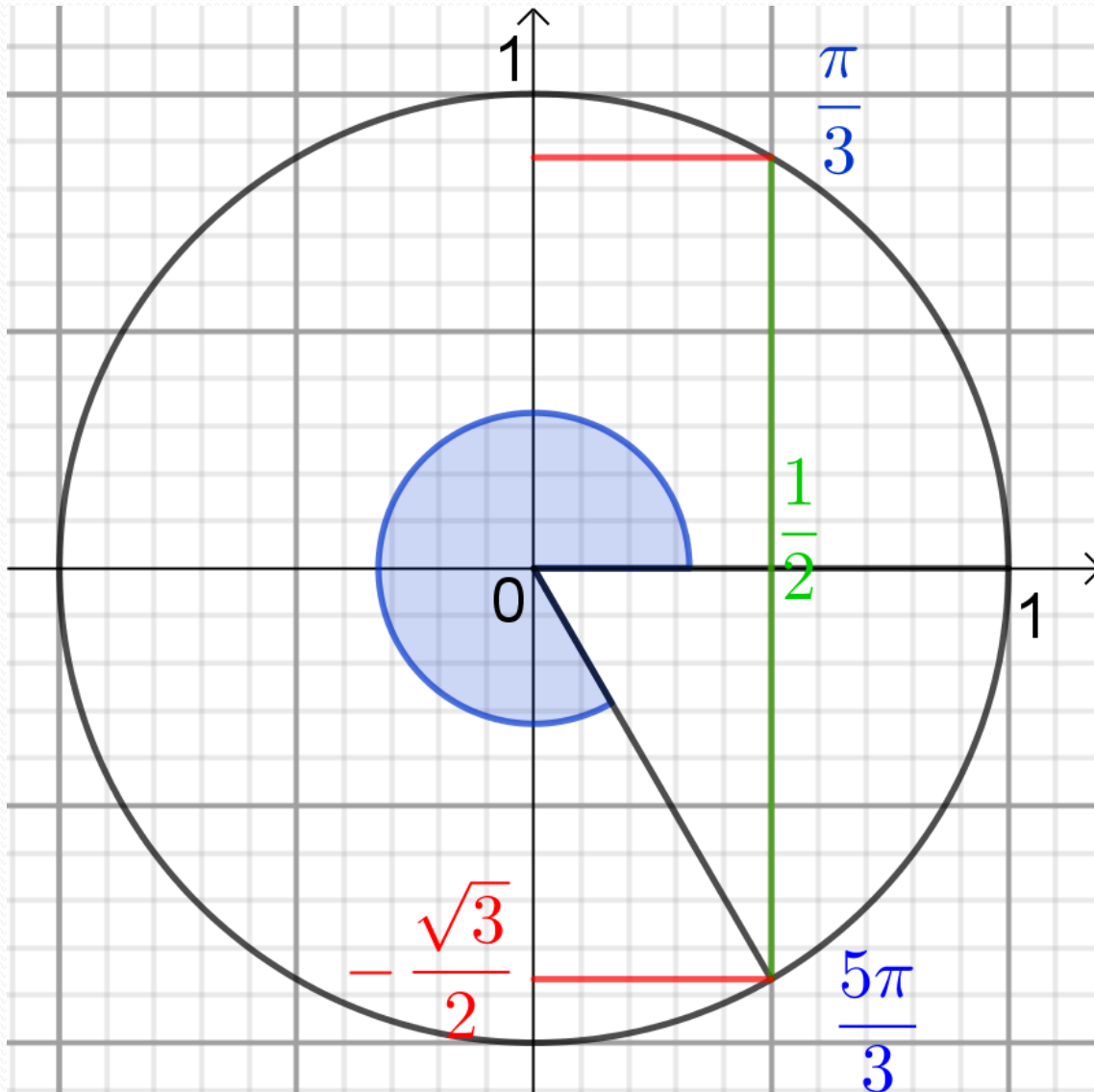
$$\sin\left(-\frac{\pi}{4}\right) = -\frac{\sqrt{2}}{2}$$

## Question 10

$$\frac{5\pi}{3}$$

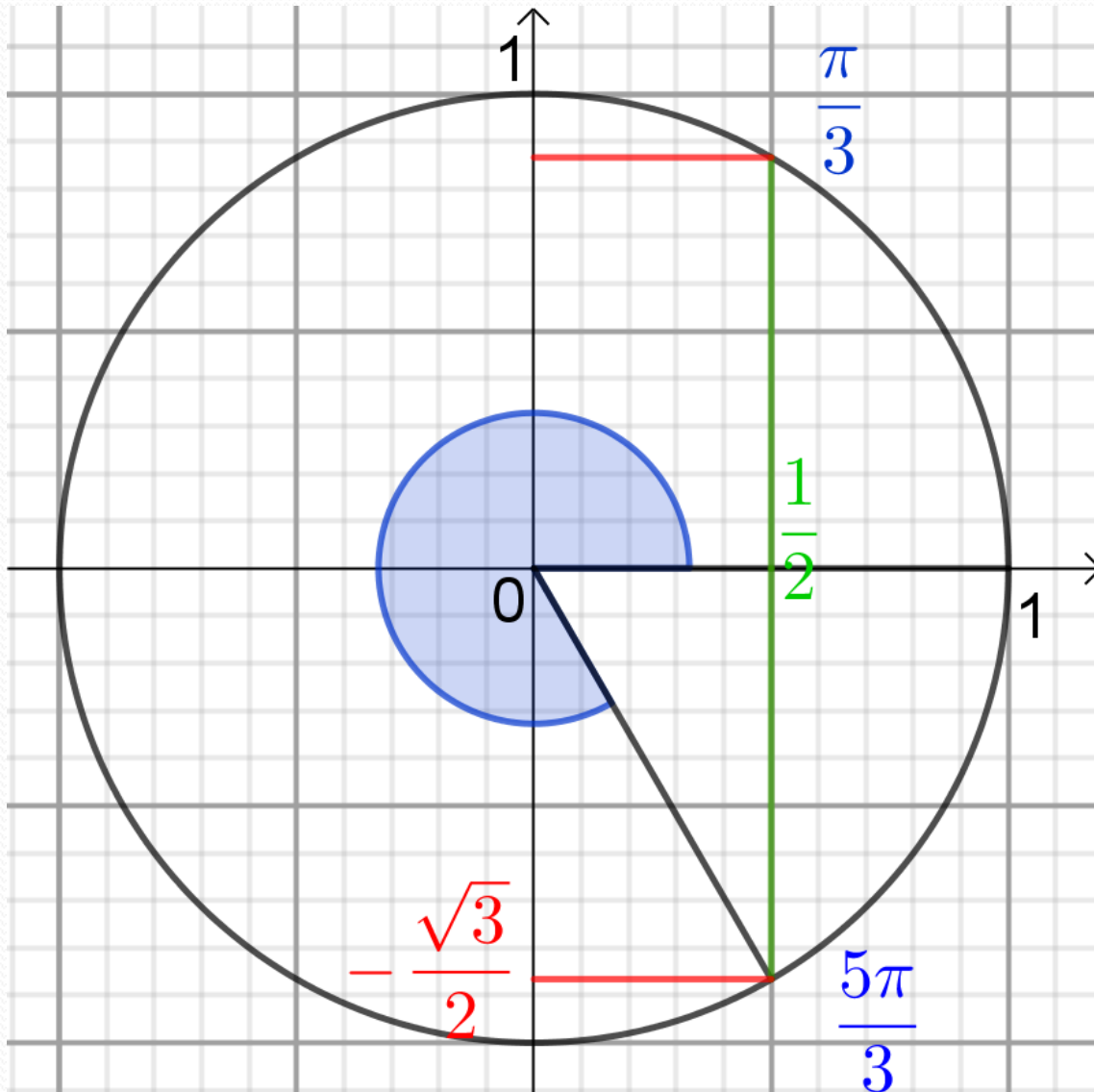
## Question 10

$$\frac{5\pi}{3}$$



## Question 10

$$\frac{5\pi}{3}$$



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

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

# Fin

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