

Name : .....

Date : ..... Score : .....

# Trigonometric Ratios on the Unit Circle

Answer the following questions using the unit circle

①  $\cos 600^\circ =$  \_\_\_\_\_  
Quadrant - \_\_\_\_\_  
Reference angle \_\_\_\_\_

②  $\tan \frac{7\pi}{6} =$  \_\_\_\_\_  
Quadrant - \_\_\_\_\_  
Reference angle \_\_\_\_\_

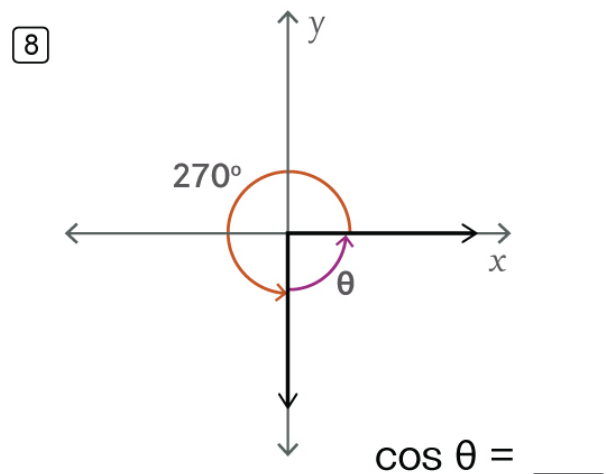
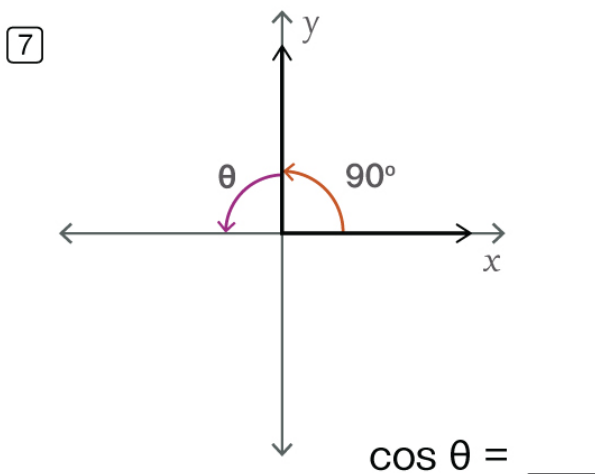
③  $\sin 210^\circ =$  \_\_\_\_\_  
Quadrant - \_\_\_\_\_  
Reference angle \_\_\_\_\_

④  $\cos \frac{11\pi}{6} =$  \_\_\_\_\_  
Quadrant - \_\_\_\_\_  
Reference angle \_\_\_\_\_

⑤  $\cot 240^\circ =$  \_\_\_\_\_  
Quadrant - \_\_\_\_\_  
Reference angle \_\_\_\_\_

⑥  $\sec \frac{7\pi}{6} =$  \_\_\_\_\_  
Quadrant - \_\_\_\_\_  
Reference angle \_\_\_\_\_

Find the value of each trigonometric function



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# Trigonometric Ratios on the Unit Circle

## Answers

①  $\cos 600^\circ = \underline{-\frac{1}{2}}$

Quadrant - III

Reference angle -  $\frac{\pi}{3}$

②  $\tan \frac{7\pi}{6} = \underline{\frac{\sqrt{3}}{3}}$

Quadrant - III

Reference angle -  $\frac{\pi}{6}$

③  $\sin 210^\circ = \underline{-\frac{1}{2}}$

Quadrant - III

Reference angle -  $\frac{\pi}{6}$

④  $\cos \frac{11\pi}{6} = \underline{\frac{\sqrt{3}}{2}}$

Quadrant - IV

Reference angle -  $\frac{\pi}{6}$

⑤  $\cot 240^\circ = \underline{\frac{\sqrt{3}}{3}}$

Quadrant - III

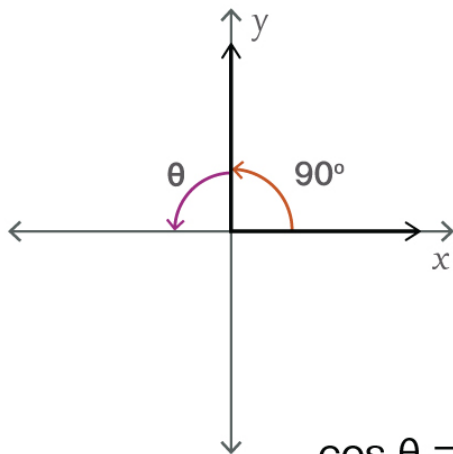
Reference angle -  $\frac{\pi}{3}$

⑥  $\sec \frac{7\pi}{6} = \underline{-\frac{2\sqrt{3}}{3}}$

Quadrant - III

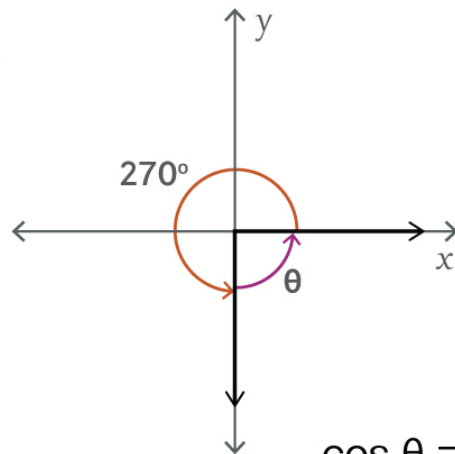
Reference angle -  $\frac{\pi}{6}$

⑦



$\cos \theta = \underline{0}$

⑧



$\cos \theta = \underline{0}$