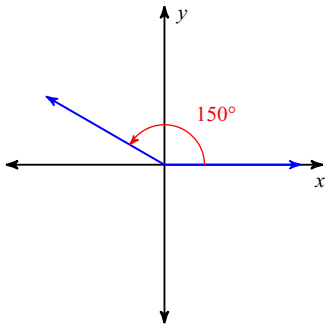


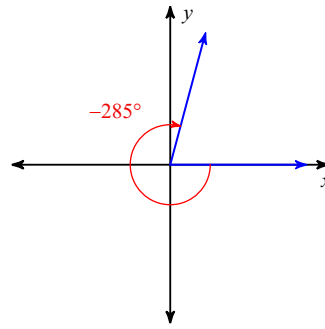
## 12-3 Trig Functions of Any Angle

Find the reference angle.

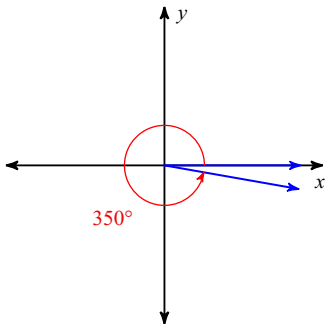
1)



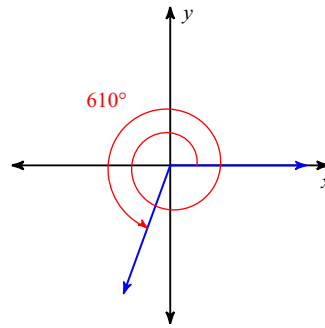
2)



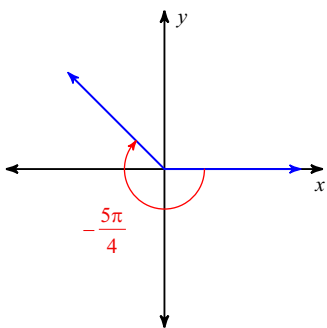
3)



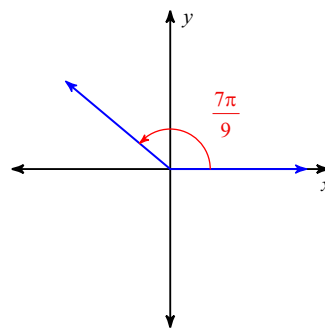
4)



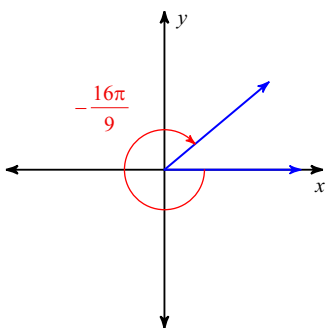
5)



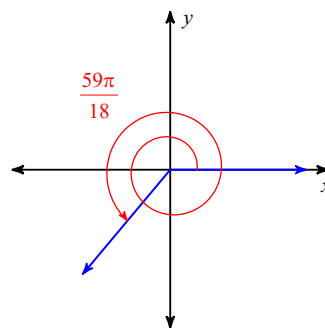
6)



7)

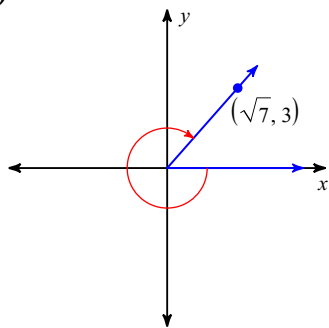


8)

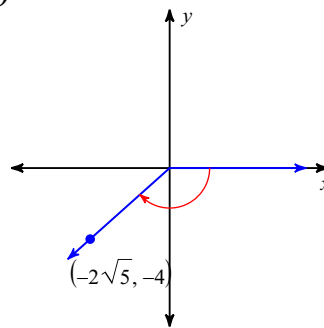


Use the given point on the terminal side of angle  $\theta$  to find the value of the trigonometric function indicated.

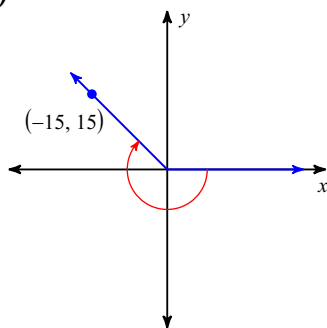
9)  $\cos \theta$



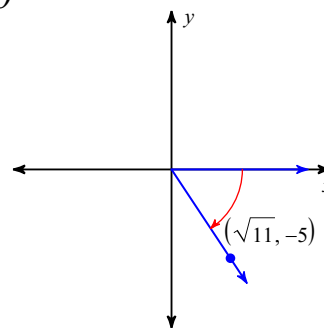
10)  $\sin \theta$



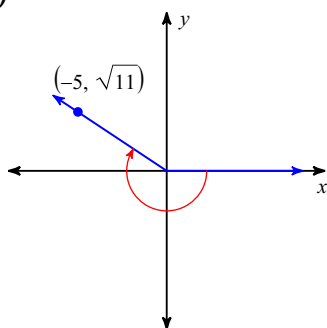
11)  $\sec \theta$



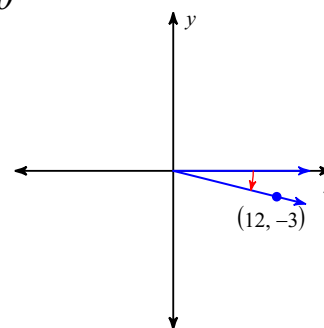
12)  $\tan \theta$



13)  $\cot \theta$



14)  $\csc \theta$



**WITHOUT USING A CALCULATOR, find the exact value of each trigonometric function.**

15)  $\sec -150^\circ$

16)  $\cos -60^\circ$

17)  $\cos 0^\circ$

18)  $\sin 300^\circ$

19)  $\cot 315^\circ$

20)  $\tan 240^\circ$