Honors PreCalculus Name_____

Unit 1 Review - Version #2

Date_____ Period____

Convert each decimal degree measure into degrees-minutes-seconds.

1) 109.66°

2) 120.5975°

3) 154.96°

Convert each degrees-minutes-seconds into decimal degrees.

4) 299° 47' 51"

5) 72° 12' 54"

6) 305° 41' 24"

Convert each degree measure into radians.

7) 80°

8) 280°

9) 600°

Convert each radian measure into degrees.

10) $\frac{\pi}{6}$

11) $\frac{\pi}{12}$

12) $-\frac{5\pi}{3}$

State if the given angles are coterminal.

13) 355°, 455°

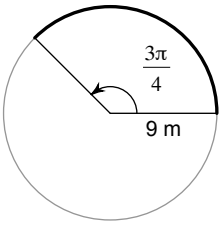
14) 75°, 375°

15) $\frac{7\pi}{4}, -\frac{5\pi}{4}$

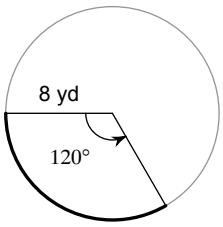
16) $\frac{\pi}{2}, -\frac{3\pi}{2}$

Find the length of each arc.

17)

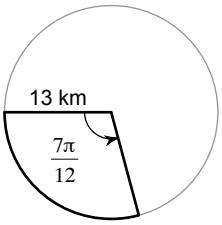


18)

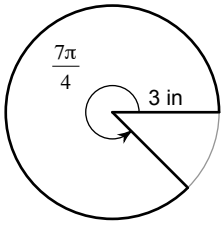


Find the area of each sector.

19)



20)



21) What is the apparent size of an object 27 in long held 200 in from your eyes?

Find the exact value of each trigonometric function.

22) sin 120°

23) cos 45°

24) $\tan 90°$

25) $\sin 135°$

26) $\cos 585°$

27) $\sin 0$

28) $\cos \frac{5\pi}{6}$

29) $\tan \frac{2\pi}{3}$

30) $\sin \frac{7\pi}{4}$

31) $\cos \frac{5\pi}{6}$

32) $\tan \frac{13\pi}{6}$

33) $\csc 225°$

34) $\csc -450°$

35) $\sec 300°$

36) $\sec 1020°$

37) $\cot 135°$

38) $\cot -45°$

39) $\csc \frac{\pi}{2}$

40) $\csc -\frac{25\pi}{6}$

41) $\sec \frac{2\pi}{3}$

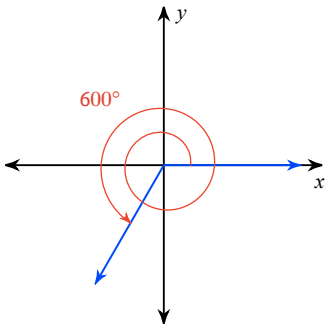
42) sec π

43) cot $\frac{5\pi}{4}$

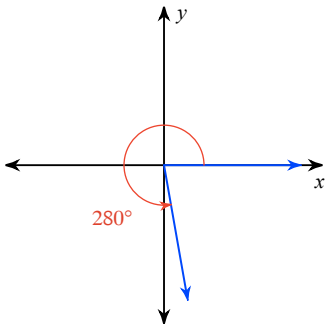
44) cot 3π

Find the reference angle.

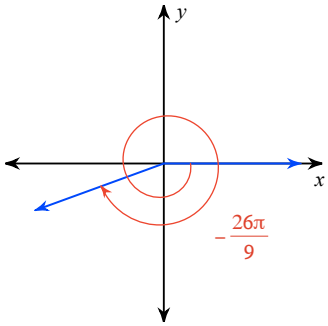
45)



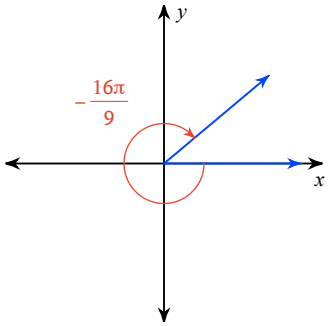
46)



47)

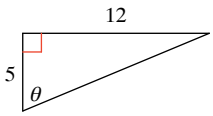


48)

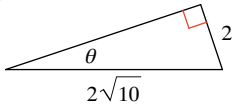


Find the value of the trig function indicated.

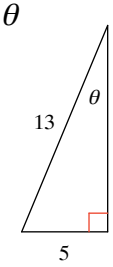
49) csc θ



50) sec θ



51) cot θ



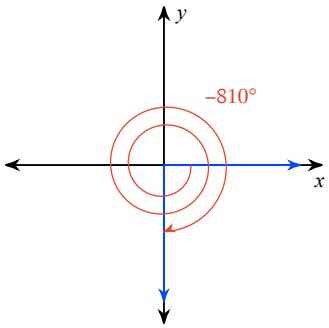
52) Find tan θ if sec $\theta = \frac{5}{3}$

53) Find sin θ if tan $\theta = \frac{5}{12}$

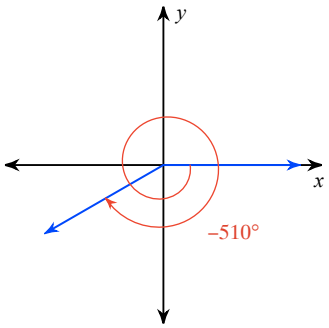
54) Find sin θ if cos $\theta = \frac{24}{25}$

Find the exact value of each trigonometric function.

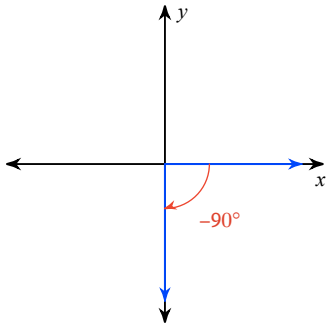
55) tan θ



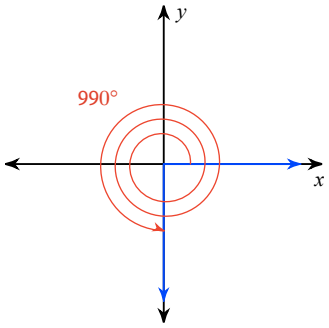
56) sin θ



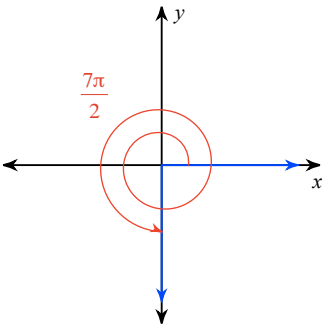
57) cot θ



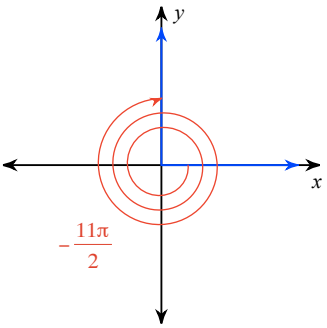
58) cos θ



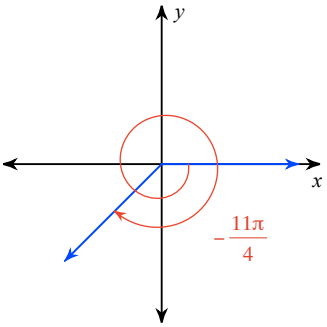
59) sec θ



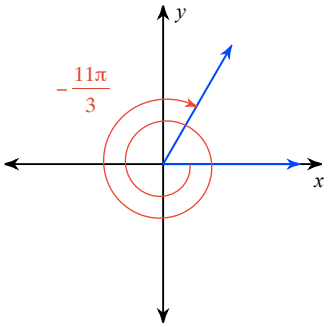
60) sin θ



61) csc θ

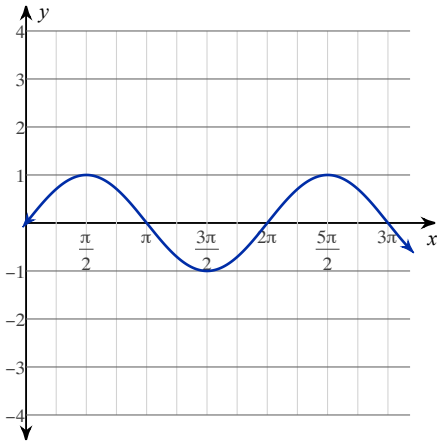


62) tan θ

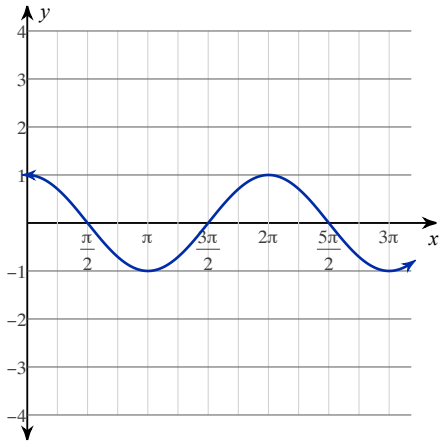


Write the function for each graph.

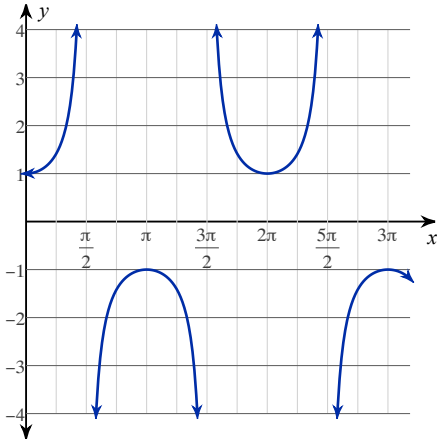
63) function: _____



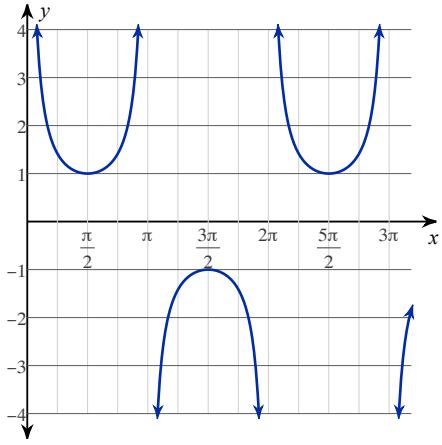
64) function: _____



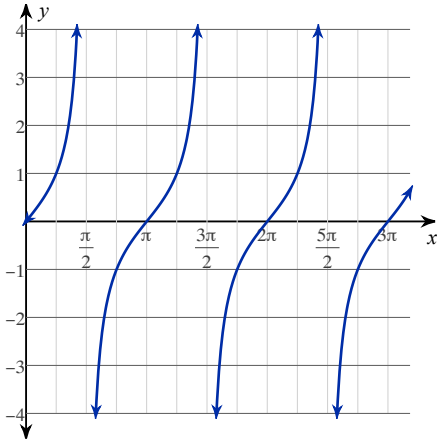
65) function: _____



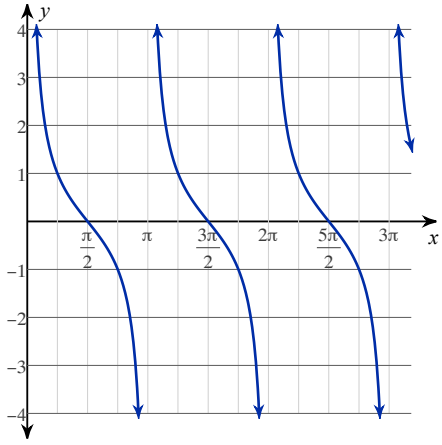
66) function: _____



67) function: _____



68) function: _____



Honors PreCalculus Name_____

Unit 1 Review - Version #2

Date_____ Period____

Convert each decimal degree measure into degrees-minutes-seconds.

1) 109.66°

109° 39' 36"

2) 120.5975°

120° 35' 51"

3) 154.96°

154° 57' 36"

Convert each degrees-minutes-seconds into decimal degrees.

4) 299° 47' 51"

299.7975°

5) 72° 12' 54"

72.215°

6) 305° 41' 24"

305.69°

Convert each degree measure into radians.

7) 80°

$\frac{4\pi}{9}$

8) 280°

$\frac{14\pi}{9}$

9) 600°

$\frac{10\pi}{3}$

Convert each radian measure into degrees.

10) $\frac{\pi}{6}$

30°

11) $\frac{\pi}{12}$

15°

12) $-\frac{5\pi}{3}$

-300°

State if the given angles are coterminal.

13) 355°, 455°

No

14) 75°, 375°

No

15) $\frac{7\pi}{4}, -\frac{5\pi}{4}$

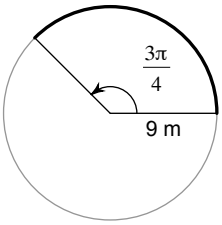
No

16) $\frac{\pi}{2}, -\frac{3\pi}{2}$

Yes

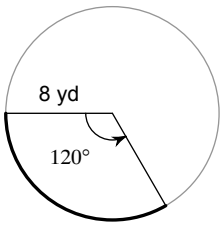
Find the length of each arc.

17)



$\frac{27\pi}{4}$ m

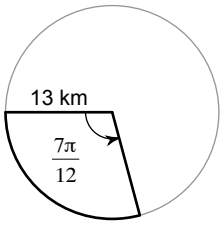
18)



$\frac{16\pi}{3}$ yd

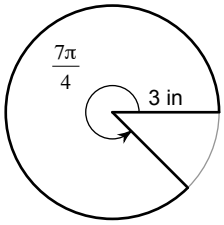
Find the area of each sector.

19)



$\frac{1183\pi}{24}$ km²

20)



$\frac{63\pi}{8}$ in²

21) What is the apparent size of an object 27 in long held 200 in from your eyes?

0.135 radians

Find the exact value of each trigonometric function.

22) sin 120°

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

23) cos 45°

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

24) $\tan 90°$

Undefined

25) $\sin 135°$

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

26) $\cos 585°$

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

27) $\sin 0$

0

28) $\cos \frac{5\pi}{6}$

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

29) $\tan \frac{2\pi}{3}$

$-\sqrt{3}$

30) $\sin \frac{7\pi}{4}$

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

31) $\cos \frac{5\pi}{6}$

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

32) $\tan \frac{13\pi}{6}$

$\frac{\sqrt{3}}{3}$

33) $\csc 225°$

$-\sqrt{2}$

34) $\csc -450°$

-1

35) $\sec 300°$

2

36) $\sec 1020°$

2

37) $\cot 135°$

-1

38) $\cot -45°$

-1

39) $\csc \frac{\pi}{2}$

1

40) $\csc -\frac{25\pi}{6}$

-2

41) $\sec \frac{2\pi}{3}$

-2

42) $\sec \pi$

-1

43) $\cot \frac{5\pi}{4}$

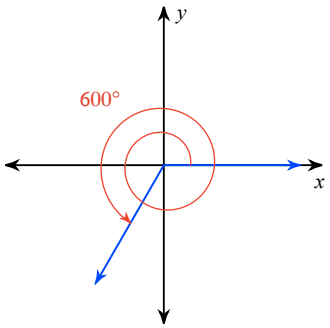
1

44) $\cot 3\pi$

Undefined

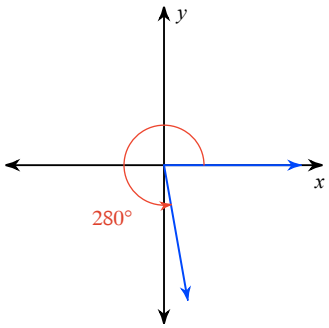
Find the reference angle.

45)



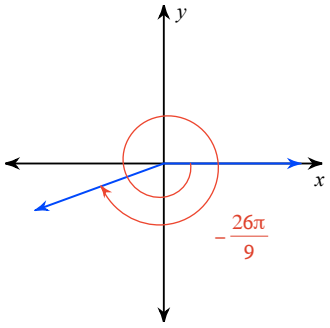
60°

46)



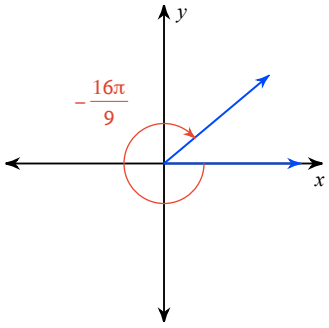
80°

47)



$\frac{\pi}{9}$

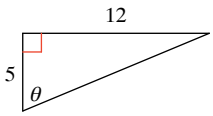
48)



$\frac{2\pi}{9}$

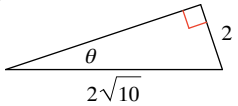
Find the value of the trig function indicated.

49) $\csc \theta$



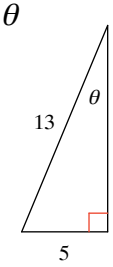
$\frac{13}{12}$

50) $\sec \theta$



$\frac{\sqrt{10}}{3}$

51) cot θ



$\frac{12}{5}$

52) Find tan θ if sec $\theta = \frac{5}{3}$

$\frac{4}{3}$

53) Find sin θ if tan $\theta = \frac{5}{12}$

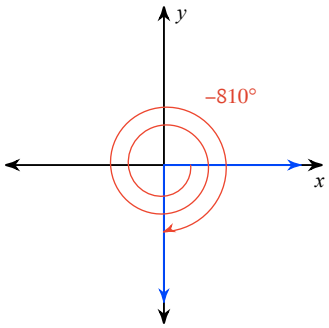
$\frac{5}{13}$

54) Find sin θ if cos $\theta = \frac{24}{25}$

$\frac{7}{25}$

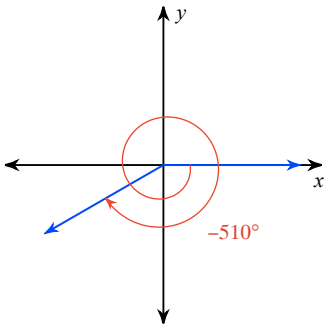
Find the exact value of each trigonometric function.

55) tan θ



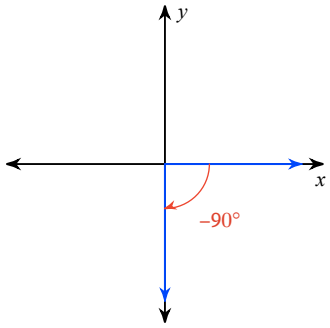
Undefined

56) sin θ



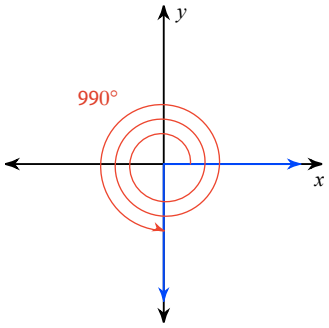
$-\frac{1}{2}$

57) cot θ



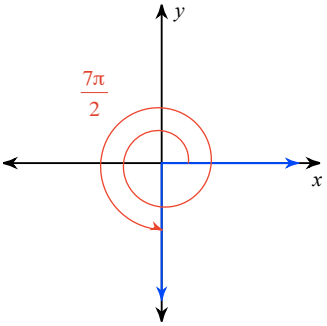
0

58) cos θ



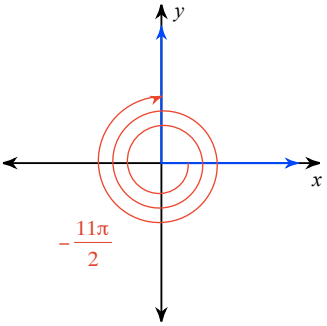
0

59) sec θ



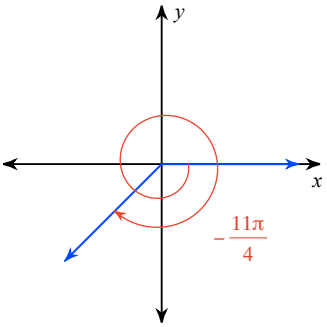
Undefined

60) sin θ



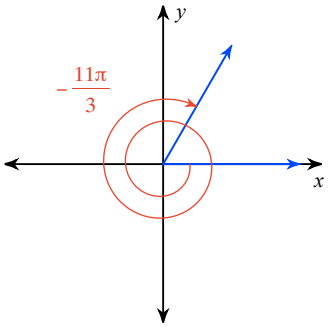
1

61) csc θ



$-\sqrt{2}$

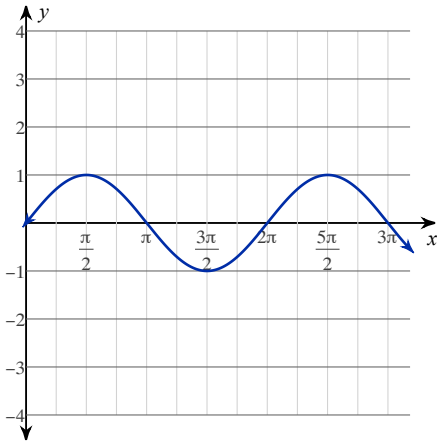
62) tan θ



$\sqrt{3}$

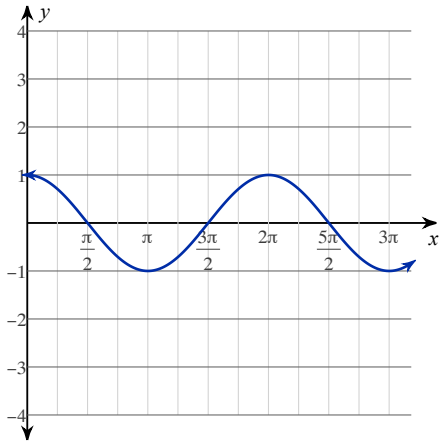
Write the function for each graph.

63) function: _____



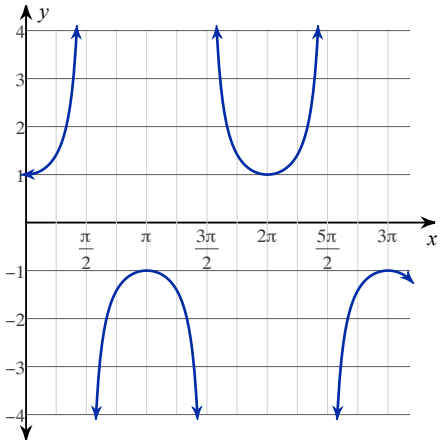
$y = \sin \theta$

64) function: _____

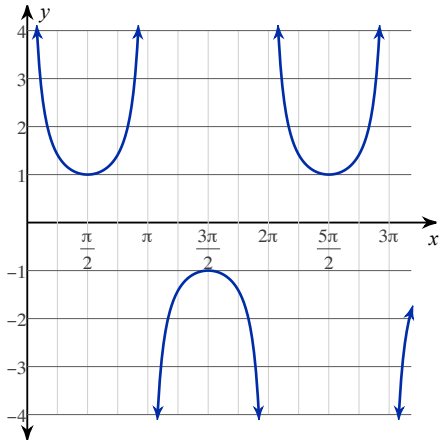


$y = \cos \theta$

65) function: _____ $y = \sec \theta$

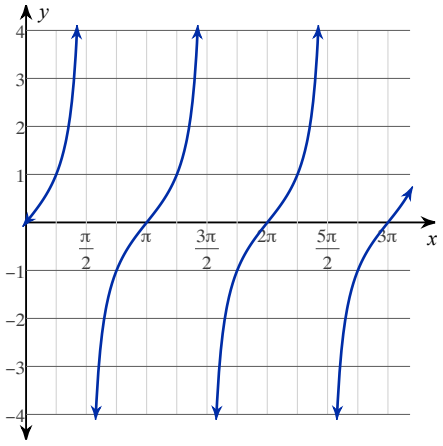


66) function: _____



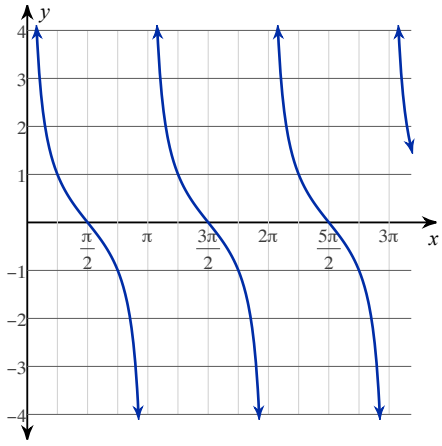
$y = \csc \theta$

67) function: _____



$y = \tan \theta$

68) function: _____



$y = \cot \theta$