Trigonometric Functions (chapter 7)

Date_____ Period____

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

1) 349.5325°

2) 343.6925°

3) 205.36°

Convert each degrees-minutes-seconds into decimal degrees.

4) 267° 48' 0"

5) 319° 45' 18"

6) 65° 24' 54"

Convert each degree measure into radians.

7) 190°

8) 135°

9) 15°

Convert each radian measure into degrees.

10) $\frac{\pi}{4}$

11) $\frac{25\pi}{36}$

12) $-\frac{17\pi}{6}$

State if the given angles are coterminal.

13) 210°, −570°

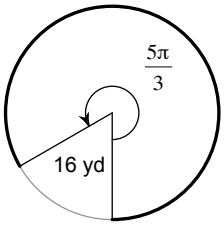
14) 335°, 1055°

15) $\frac{43\pi}{36}$, $-\frac{29\pi}{36}$

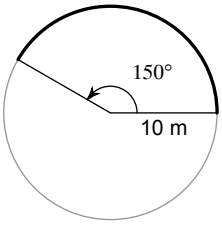
16) $\frac{3\pi}{2}$, $\frac{7\pi}{2}$

Find the length of each arc.

17)

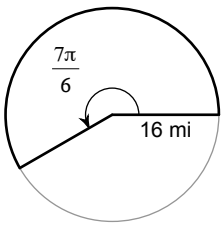


18)



Find the area of each sector.

19)



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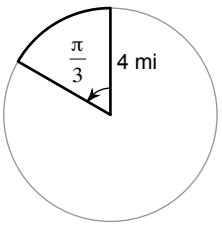


21) What is the apparent size of an object 24 in long held 130 in from your eyes?

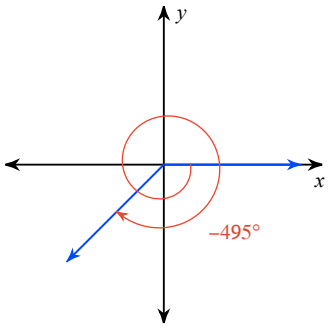
Find the reference angle for each given angle.

22) 175°

23) $\frac{61\pi}{36}$

Find the reference angle.

24)



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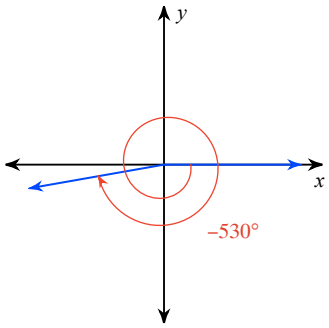

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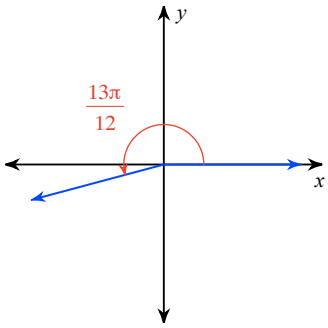

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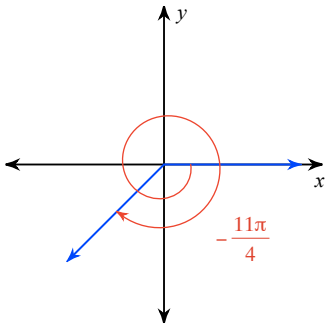


Find the exact value of each trigonometric function.

28) sin 135°

29) cos 210°

30) tan 300°

31) sin −585°

32) $\cos 405°$

33) $\sin \frac{3\pi}{4}$

34) $\cos \frac{2\pi}{3}$

35) $\tan \frac{5\pi}{6}$

36) $\sin 5\pi$

37) $\cos -\pi$

38) $\tan -\frac{5\pi}{6}$

39) $\csc 0°$

40) $\csc -990°$

41) $\sec 30°$

42) $\sec 690°$

43) $\cot 0°$

44) $\cot -660°$

45) $\csc \frac{7\pi}{6}$

46) $\csc -4\pi$

47) $\sec \frac{11\pi}{6}$

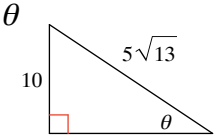
48) $\sec -\frac{\pi}{4}$

49) $\cot \frac{\pi}{6}$

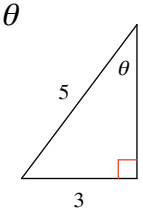
50) $\cot -\dfrac{11\pi}{3}$

Find the value of the trig function indicated.

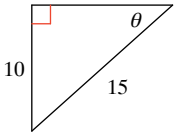
51) $\csc\theta$



52) $\sec\theta$



53) $\cot\theta$



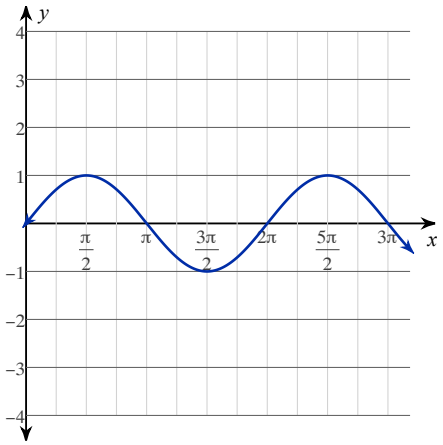
54) Find $\sin\theta$ if $\cot\theta = \dfrac{1}{2}$

55) Find $\csc\theta$ if $\cot\theta = 1$

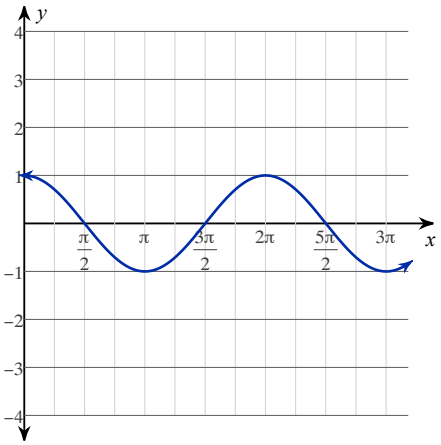
56) Find $\tan\theta$ if $\cos\theta = \dfrac{3}{4}$

Write the function for each graph.

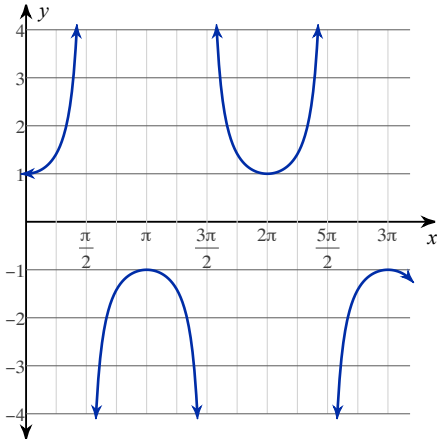
57) function: _____



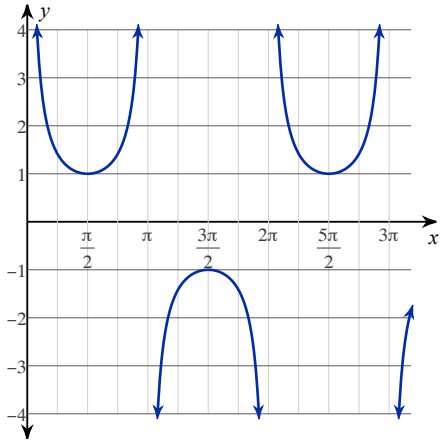
58) function: _____



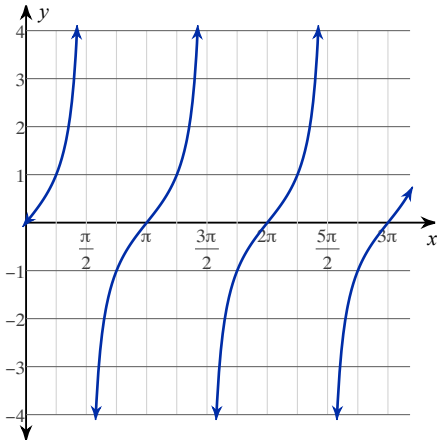
59) function: _____



60) function: _____



61) function: _____



62) function: _____