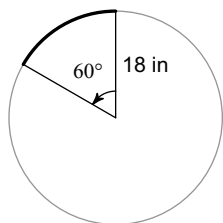


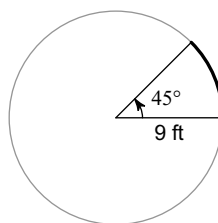
Trig Functions Extra Practice #1

Find the length of each arc.

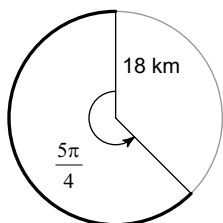
1)



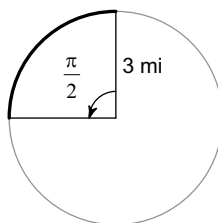
2)



3)

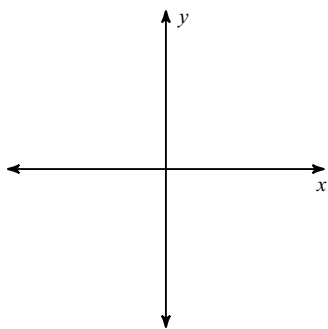


4)

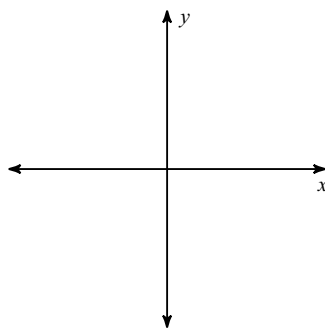


Draw an angle with the given measure in standard position.

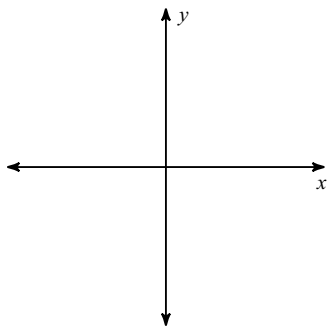
5) 315°



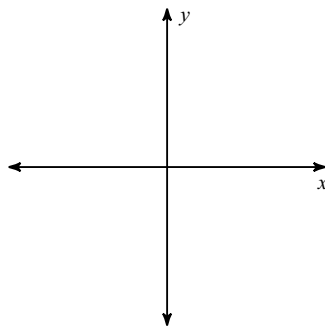
6) 40°



7) $\frac{11\pi}{3}$



8) $\frac{41\pi}{18}$



Convert each degree measure into radians.

9) 420°

10) -120°

Convert each radian measure into degrees.

11) $\frac{47\pi}{12}$

12) $-\frac{17\pi}{3}$

State the quadrant in which the terminal side of each angle lies.

13) 370°

14) 480°

15) 234°

16) 560°

17) $\frac{29\pi}{12}$

18) $\frac{7\pi}{18}$

19) $\frac{13\pi}{9}$

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

Find a positive and a negative coterminal angle for each given angle.

21) -330°

22) 480°

23) $\frac{74\pi}{45}$

24) $\frac{13\pi}{15}$

Find the exact value of each trigonometric function.

25) $\sin 1020^\circ$

26) $\cos 225^\circ$

27) $\tan 315^\circ$

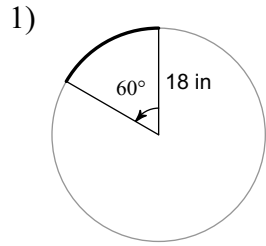
28) $\sin \frac{5\pi}{6}$

29) $\cos \frac{4\pi}{3}$

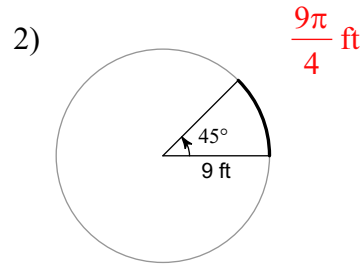
30) $\tan -\frac{11\pi}{6}$

Trig Functions Extra Practice #1

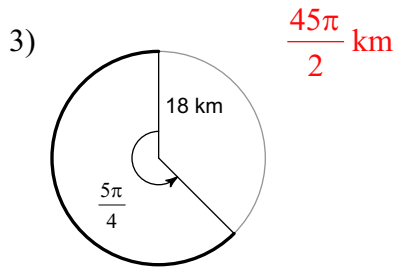
Find the length of each arc.



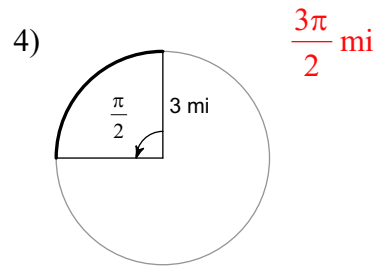
6π in



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



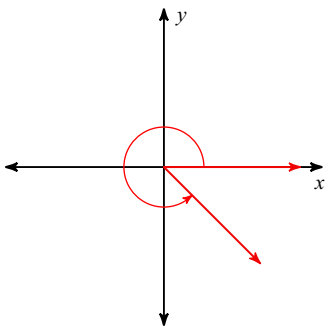
$\frac{45\pi}{2}$ km



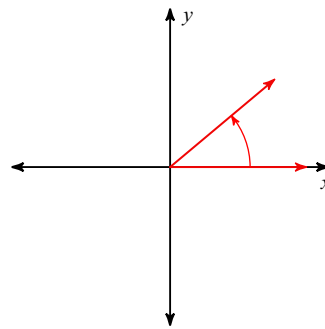
$\frac{3\pi}{2}$ mi

Draw an angle with the given measure in standard position.

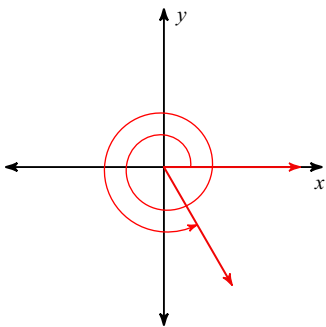
5) 315°



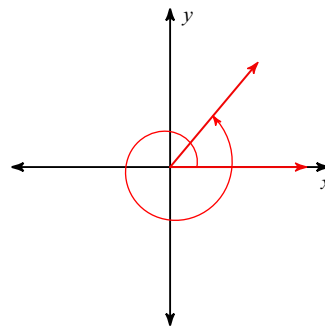
6) 40°



7) $\frac{11\pi}{3}$



8) $\frac{41\pi}{18}$



Convert each degree measure into radians.

9) 420° $\frac{7\pi}{3}$

10) -120° $-\frac{2\pi}{3}$

Convert each radian measure into degrees.

$$11) \frac{47\pi}{12}$$

705°

$$12) -\frac{17\pi}{3}$$

-1020°

State the quadrant in which the terminal side of each angle lies.

$$13) 370^\circ$$

I

$$14) 480^\circ$$

II

$$15) 234^\circ$$

III

$$16) 560^\circ$$

III

$$17) \frac{29\pi}{12}$$

I

$$18) \frac{7\pi}{18}$$

I

$$19) \frac{13\pi}{9}$$

III

$$20) \frac{2\pi}{9}$$

I

Find a positive and a negative coterminal angle for each given angle.

$$21) -330^\circ$$

30° and -690°

$$22) 480^\circ$$

120° and -240°

$$23) \frac{74\pi}{45}, \frac{164\pi}{45} \text{ and } -\frac{16\pi}{45}$$

$$24) \frac{13\pi}{15}, \frac{43\pi}{15} \text{ and } -\frac{17\pi}{15}$$

Find the exact value of each trigonometric function.

$$25) \sin 1020^\circ$$

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

$$26) \cos 225^\circ$$

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

$$27) \tan 315^\circ$$

-1

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

$\frac{1}{2}$

$$29) \cos \frac{4\pi}{3}$$

$-\frac{1}{2}$

$$30) \tan -\frac{11\pi}{6}$$

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