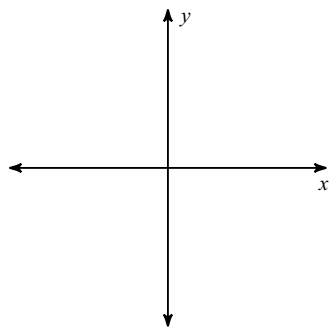


Optional Review Work - I hope you're doing well!

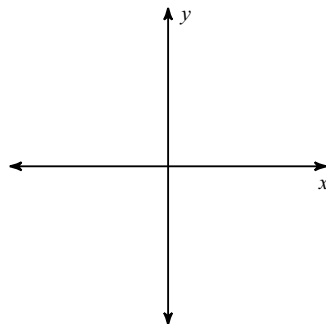
Date _____

Draw an angle with the given measure in standard position.

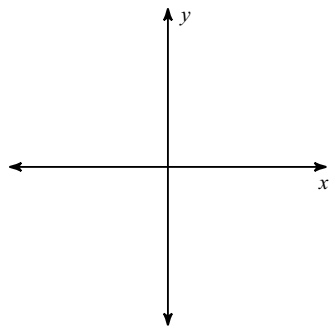
1) $-\frac{5\pi}{2}$



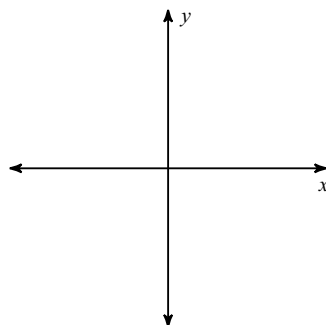
2) 315°



3) $-\frac{8\pi}{3}$



4) -145°

**Convert each degree measure into radians and each radian measure into degrees.**

5) $\frac{\pi}{9}$

6) $\frac{2\pi}{3}$

7) $-\frac{31\pi}{18}$

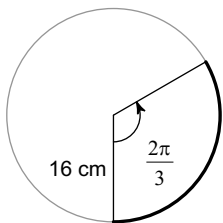
8) 5

9) -510°

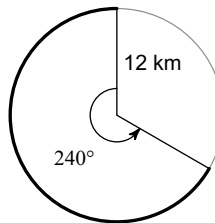
10) $\frac{61\pi}{36}$

Find the length of each arc. Exact answers only.

11)



12)

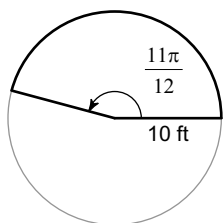


13) $r = 11$ yd, $\theta = 195^\circ$

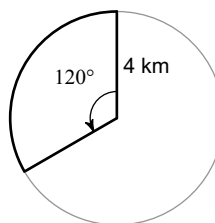
14) $r = 15$ m, $\theta = \frac{3\pi}{4}$

Find the area of each sector. Exact answers only.

15)



16)



17) $r = 14$ ft, $\theta = 150^\circ$

18) $r = 6$ km, $\theta = \frac{\pi}{2}$

Find a positive and a negative coterminal angle for each given angle. Units should remain the same.

19) -75°

20) 208°

21) -2π

22) $\frac{29\pi}{30}$

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

23) 255°

24) -589°

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

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

27) $\sin \theta < 0$ and $\cos \theta > 0$

28) $\cot \theta > 0$ and $\sec \theta < 0$

Find the exact value of each trigonometric function. Use your unit circle!

29) $\sec \frac{17\pi}{6}$

30) $\csc 450^\circ$

31) $\sin -240^\circ$

32) $\tan -150^\circ$

33) $\sec 315^\circ$

34) $\cos -\frac{7\pi}{6}$

35) $\tan 240^\circ$

36) $\cot 1035^\circ$

37) $\cos 120^\circ$

38) $\cot -\frac{\pi}{2}$

Use the given point on the terminal side of angle θ to find the value of all 6 trigonometric functions. (If you want answers to these, let me know and I'll make a key)

39) $(3, -\sqrt{7})$

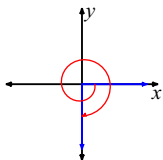
40) $(-12, 6)$

41) $(4, 3)$

42) $(-12, -11)$

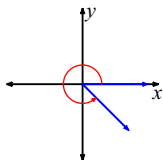
Answers to Optional Review Work - I hope you're doing well!

1)



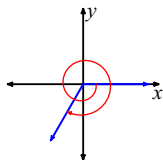
5) 20°

2)



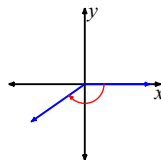
6) 120°

3)



7) -310°

4)



8) $\frac{900^\circ}{\pi}$

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

10) 305°

11) $\frac{32\pi}{3}$ cm

12) 16π km

13) $\frac{143\pi}{12}$ yd

14) $\frac{45\pi}{4}$ m

15) $\frac{275\pi}{6}$ ft²

16) $\frac{16\pi}{3}$ km²

17) $\frac{245\pi}{3}$ ft²

18) 9π km²

19) 285° and -435°

20) 568° and -152°

21) 0 and -4π

22) $\frac{89\pi}{30}$ and $-\frac{31\pi}{30}$

23) III

24) II

25) IV

26) I

27) IV

28) III

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

30) 1

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

32) $\frac{\sqrt{3}}{3}$

33) $\sqrt{2}$

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

35) $\sqrt{3}$

36) -1

37) $-\frac{1}{2}$

38) 0

39)

40)

41)

42)