

## Math-3 HW #6-3 (trig ratios, angle measure)

Period \_\_\_\_\_

- 1) a) Find the measure of the reference angle whose terminal side passes through the point (8, 15)  
b) Find the measure of the standard position angle  
c) Find the sin ratio for this angle.
  
- 2) The terminal side of an angle passes through the points (9, 12)  
a) Find the the measure of the reference angle.  
b) Find the measure of the standard position angle.  
c) Find the sin ratio for this angle.
  
- 3) The terminal side of an angle passes through the points (-7, -34)  
a) Find the the measure of the reference angle.  
b) Find the measure of the standard position angle.  
c) Find the sin ratio for this angle.
  
- 4) The terminal side of an angle passes through the points (6, -9)  
a) Find the the measure of the reference angle.  
b) Find the measure of the standard position angle.  
c) Find the sin ratio for this angle.

Convert each degree measure into radians.

5)  $195^\circ$

6)  $300^\circ$

Convert each radian measure into degrees.

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

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

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

9)  $48^\circ$

10)  $285^\circ$

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

12)  $\frac{5\pi}{6}$

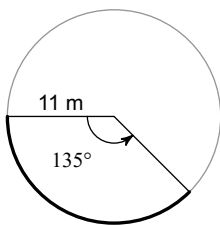
Find the area of each sector.

13)  $r = 7$  ft,  $\theta = 240^\circ$

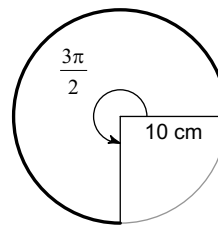
14)  $r = 11$  ft,  $\theta = 225^\circ$

Find the length of each arc. Write your answer as a reduced fraction. Leave  $\pi$  in your answer.

15)

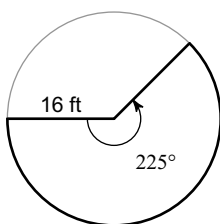


16)



Find the area of each sector. Write your answer as a reduced fraction. Leave  $\pi$  in your answer.

17)



18)

