Trig. 1-2
Algebra II B

Name:_____
Hour:_____

Convert Degrees to Radians.

1. 45°

2. 150°

3. 330°

4. 72°

Convert Radians to Degrees.

5. $\frac{\pi}{6}$

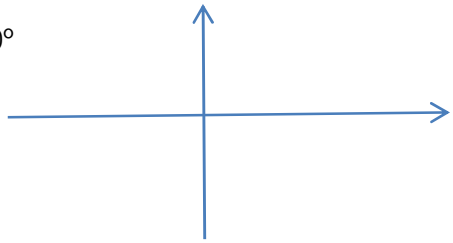
6. $\frac{\pi}{3}$

7. $\frac{3\pi}{4}$

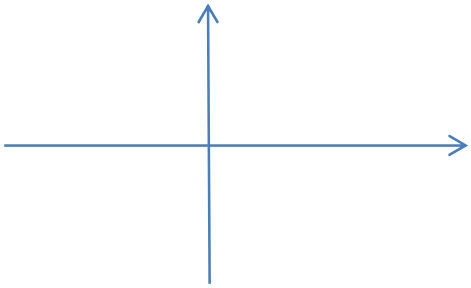
8. $\frac{7\pi}{6}$

Draw the angle in standard position, then find two positive angles and two negative angles that are Co-terminal with the given angle.

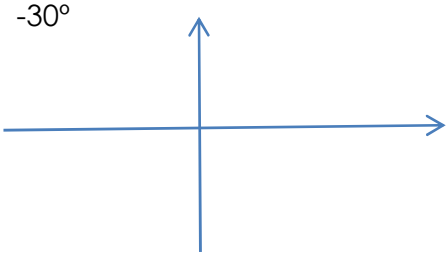
9. 50°



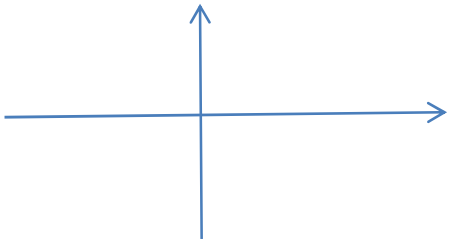
10. 150°



11. -30°



12. 200°

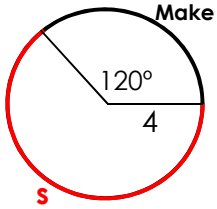


13. Find an angle between 0° and 360° that is coterminal with 90°.

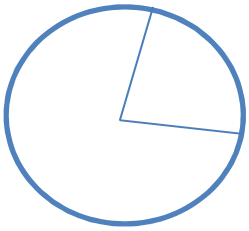
14. Find an angle between 0 and 2π that is coterminal with $\frac{\pi}{4}$.

15. Find the length of arc **s** in the figure.

Make sure you convert the angle to radians!



16. An arc of length 60m subtends a central angle θ in a circle of radius 20m. **Find θ** in radians.



College Preparation question:

17. A cars wheels are 28 inches in diameter. How far in miles will the car travel if its wheels revolve 10000 times? (Hint: convert inches to miles)

18. Because earth is a sphere, the distance from one point to another is an arc length. If the latitude of Gayord, Michigan is 45 degrees North (halfway from the equator to the north pole), and the radius of the earth is 3,963 miles, then how far is Gaylord from the equator? (the equator is 0^o latitude)
Draw a picture to help you with this problem.