Trig. 1-2 Review
Algebra II B

Name:_____
Hour:_____

Formula's: **(Arc)** $s = r \cdot \theta \ (in\ radians), \quad R = \frac{\pi}{180} \cdot D, \quad D = \frac{180}{\pi} \cdot R$

Convert Degrees to Radians.

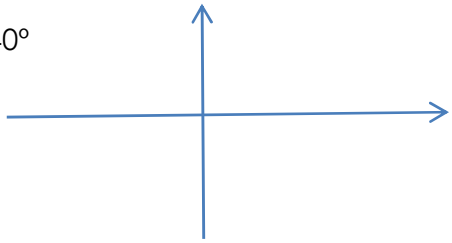
1. 15° **2.** 135° **3.** 270° **4.** 210°

Convert Radians to Degrees.

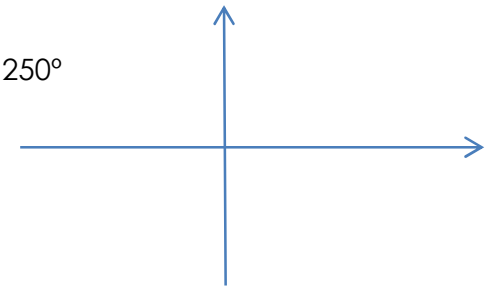
5. $\frac{7\pi}{6}$ **6.** $\frac{5\pi}{3}$ **7.** $\frac{7\pi}{4}$ **8.** $\frac{11\pi}{6}$

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

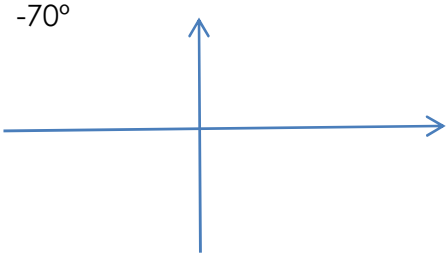
9. 140°



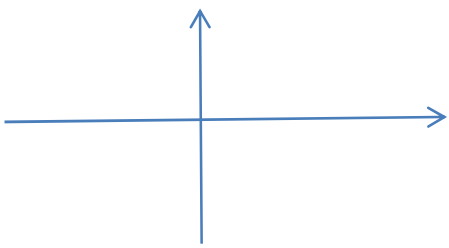
10. 250°



11. -70°



12. 350°

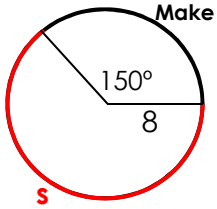


13. Find an angle between 0° and 360° that is coterminal with 270°.

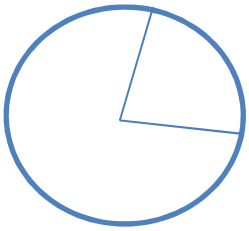
14. Find an angle between 0 and 2π that is coterminal with $\frac{\pi}{3}$.

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

Make sure you convert the angle to radians!



16. An arc of length 100ft subtends a central angle θ in a circle of radius 40ft. **Find θ** in radians.



College Preparation question:

17. A cars wheels are 22 inches in diameter. How far in miles will the car travel if its wheels revolves 50000 times? (Hint: convert inches to miles…5,280 ft =1 mile)

18. Because earth is a sphere, the distance from one point to another is an arc length. If the latitude of Miami, Florida is 23° degree North, and the radius of the earth is 3,963 miles, then how far is Miami from the North Pole?
Draw a picture to help you with this problem.