12.2 Arc Length

NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ HOUR: \_\_\_\_\_\_\_\_\_\_\_

1. The distance from point A to point B, on the outside of a circle is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2-11: Convert the following from degrees to radians, or radians to degrees.

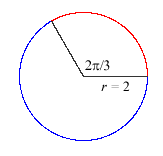
2. 3. Radians 4. 5. 6. Radians

7. Radians 8. Radians 9. 10. Radians 11. Radians

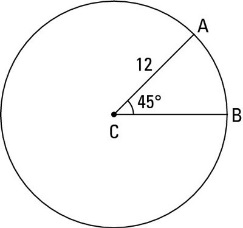
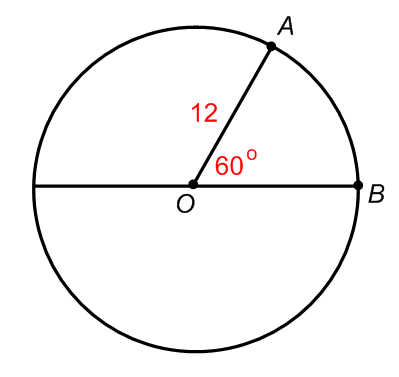
12. How do you find the Arc Length of a circle using degrees and radians?

-Degrees:

-Radians:

13-15: Find the arc length from point A to point B to the nearest tenth.

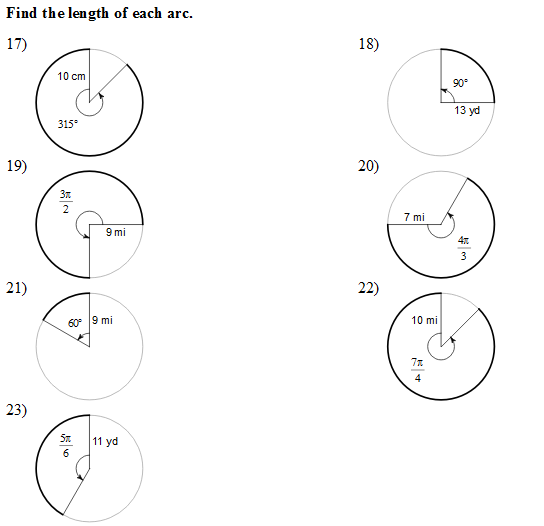
A

13. 14. 15. 

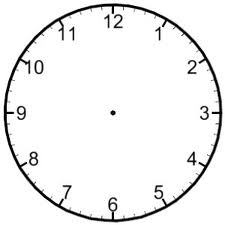
Radians

B

16. The minute hand of a clock is 6 inches long. If the hand moves from 1:05 to 1:25, what is the distance the tip of the hand moves, to the nearest tenth?



**24-26: Consider a standard 12-hour clock like the one below with a radius of 5 inches.  
Use this to answer questions 16-20. Use the shortest path between the two numbers.**

****24. What is the length of the arc between the 3 and the 7?

25. What is the length of the arc between the 3 and the 2?

26. It is 1:25. What is the length of the arc between the minute and hour hands?