TICKET-IN-THE-DOOR

In order to be prepared for class you must watch the module and complete the following activity. This is due first thing when you get to class.

List the conversion **ratios** between radians and degrees.

The **arc length**, s, spanned in a circle with radius r is given by $s =$ _____, where θ is expressed in _____.

Check your understanding:

1. Determine the **exact** value of $\cos\left(\frac{2\pi}{3}\right)$? (Hint: Sketch the angle, find the reference angle and then use your special right triangles from geometry!)

2. What is the **arc length** corresponding to 330° on a circle of radius 3? Round your answer to 3 decimal places.

3. The angle 270° is equivalent to _____ π radians.

4. 0.75 rotations around the unit circle corresponds to _____ π radians.

5. What is the **length of an arc** cut off by an angle of 210° in a circle of radius 2.4 meters? Give your answer correct to 3 decimal places.

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