What is Pi?
Pi, which is represented by the Greek letter \( \pi \), is a number that is famously used to find the area and circumference of a circle. Though the decimal technically never ends, we usually simplify the number to just 5 digits: 3.1415. You can also turn it into the fraction \( \frac{22}{7} \). This number can be used in several different areas of math, from simply measuring the area and diameter of a circle all the way to determining arc lengths and volumes of 3D objects.

Radians and Degrees
Pi is used along with radians and degrees to measure angles. A radian is defined as an arc that has the same measure as the radius of a circle.

Since \( \pi \) diameters equal circumference, \( 2\pi \) radius lengths also equals circumference. Therefore, 360 degrees is the same as \( 2\pi \) radians, 180 degrees equals \( \pi \) radians, 90 degrees equals \( \pi/2 \) radians, etc.

- To convert from degrees to radians, multiply the angle's measure by \( \frac{\pi}{180^\circ} \)

- To convert from radians to degrees, multiply the angle's measure by \( \frac{180^\circ}{\pi} \)

*Try it yourself!
1. Convert the angle \( \frac{5\pi}{9} \) radians to degrees.
2. Convert the angle 240° to radians.*

Don't forget to show your work!

---

I. Since you multiply the angle's measure by \( \frac{\pi}{180^\circ} \), which equals \( \frac{\pi}{180^\circ} \) radians, multiply \( \frac{6}{\sqrt{5}} \) radians by \( \frac{180^\circ}{\pi} \) to convert radians to degrees. Simplify.

2. Since you multiply the angle's measure by \( \frac{\pi}{180^\circ} \), which equals \( \frac{\pi}{180^\circ} \) radians, multiply \( \frac{\pi}{180^\circ} \) radians by \( \frac{\pi}{180^\circ} \) to convert radians to degrees. Simplify.