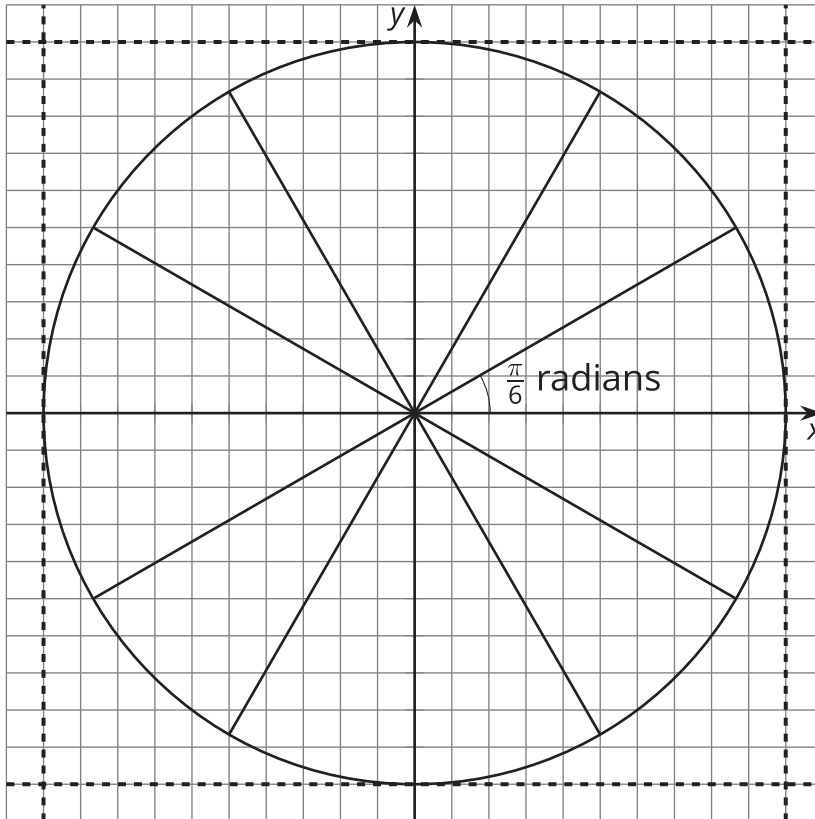# Unit 6 Lesson 4: The Unit Circle (Part 2)

1 Notice and Wonder: Angles Around the Unit Circle (Warm up)
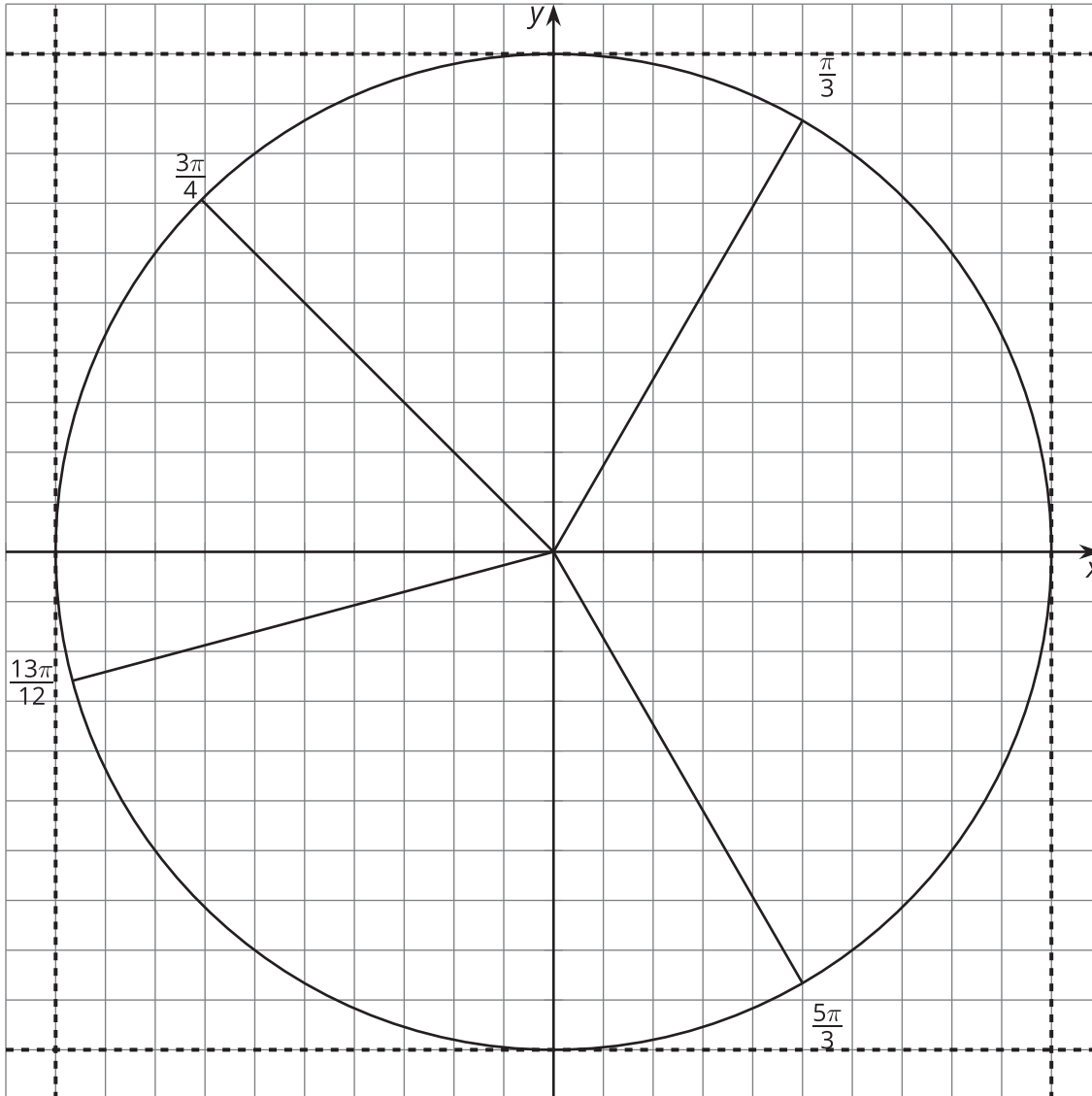
Student Task Statement

What do you notice? What do you wonder?

2 Angles Everywhere

Student Task Statement

Here is a circle of radius 1 with some radii drawn.

1. Draw and label angles, with the positive x-axis as the starting ray for each angle, measuring $\frac{\pi}{12}, \frac{\pi}{6}, \frac{\pi}{4} \dots , 2\pi$ in the counterclockwise direction. Four of these angles, one in each quadrant, have been drawn for you. There should be a total of 24 angles labeled when you are finished, including those that line up with the axes. Be prepared to share any strategies you used to make the angles.

2. Label the points, where the rays meet the unit circle, for which you know the exact coordinate values.

3 Angle Coordinates Galore

Student Task Statement

Your teacher will assign you a section of the unit circle.

1. Find and label the coordinates of the points assigned to you where the angles intersect the circle.

2. Compare and share your values with your group.

3. What relationships or patterns do you notice in the coordinates? Be prepared to share what you notice with the class.