Unit Circle Worksheet

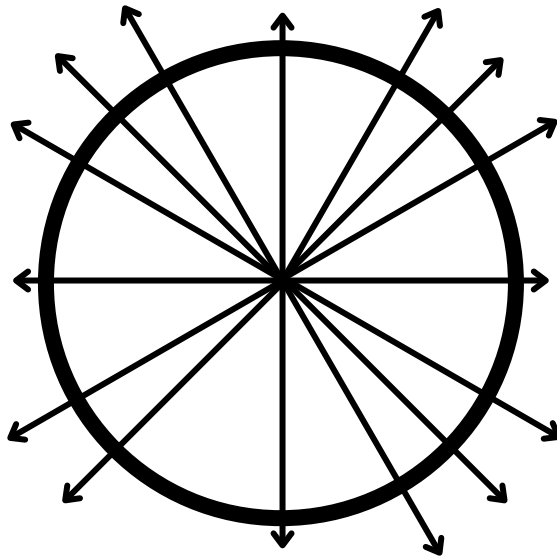**Name:** _____   **Grade:** _____

Instructions: Use the unit circle diagram to answer the questions.
Label angles in degrees and radians.
Identify coordinates and use symmetry to find values.
1. Refer to standard angles like 0°, 90°, 180°, and their radian forms.

Activity Questions:

1. Label the angle at the top of the circle. What is its value in degrees and radians?

2. Identify the angle located at the far left of the circle. Provide the coordinate and angle in both degrees and radians.

3. What are the coordinates for the angle that points directly downward?

4. What is the angle (in degrees and radians) that corresponds to the point ($\sqrt{2}/2$, $\sqrt{2}/2$)?

5. How many total angles are marked on this circle? What is the angle spacing in degrees between each?

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Answer Key

1. Top of the circle:

90°, π/2

2. Far left of the circle:

180°, π → Coordinate: (-1, 0)

3. Directly downward:

 Coordinate = (0, -1) → Angle: 270°, 3π/2

4. Point (√2/2, √2/2):

 Angle = 45°, π/4

5. There are 16 angles marked.

 Angle spacing = 360° ÷ 16 = 22.5°