

# Unit Circle Worksheet

## Section 1: Degree & Radian Conversions

1. Convert  $45^\circ$  to radians.
2. Convert  $5\pi/6$  radians to degrees.
3. Convert  $270^\circ$  to radians.
4. Convert  $\pi/4$  radians to degrees.
5. Convert  $330^\circ$  to radians.

## Section 2: Use the unit circle to find the missing values.

1. What are the coordinates of  $120^\circ$  on the unit circle?
2. What is the sine of  $210^\circ$ ?
3. What is the cosine of  $300^\circ$ ?
4. Find the tangent of  $135^\circ$ .
5. What are the coordinates of  $270^\circ$  on the unit circle?

## Section 3: Conceptual Based Questions

1. In which quadrants is the sine function negative?
2. A wind turbine blade rotates  $180^\circ$  in 10 seconds. How many radians does it rotate per second?