

Unit Circle Worksheet

1

Graph the function $y = \sin(\theta)$ over one complete cycle, labeling significant points using the unit circle.

2

Choose a real-world problem involving angles and trigonometric functions (e.g., calculating the height of a building using angles of elevation and depression). Solve the problem using the unit circle.

3

Solve the following trigonometric equations for θ within the range $[0, 2\pi)$

- $\sin(\theta) = \cos(\theta)$
- $2\sin(\theta) + \sqrt{3} = 0$