The quiz will last fifteen (15) minutes. Each question is worth one point—therefore there is no partial credit. You must show your work to receive credit. Please write your answer to Question #1 on the first line, Question #2 on the second line, and so on. Use the correct units—either degrees (°) or radians (rad or rads)—when writing your answer.

Name: Key

1. (1 point) Convert 1 rad to degrees. (Hint: Recall that $2\pi$ rads = 360°.)

\[
\frac{2\pi \text{ rads}}{2\pi} = \frac{360^\circ}{2\pi}
\]

\[
1 \text{ rad} = \frac{180^\circ}{\pi}
\]

\[
\frac{180^\circ}{\pi}
\]

1. 

2. (1 point) Convert 1° to radians. (Hint: See the previous hint.)

\[
\frac{360^\circ}{360} = \frac{2\pi \text{ rads}}{360}
\]

\[
1^\circ = \frac{\pi}{180} \text{ rads}
\]

\[
\frac{\pi}{180 \text{ rads}}
\]

2. 

3. (1 point) Convert $\frac{\pi}{6}$ rads to degrees.

\[
\frac{\pi}{6} \text{ rads} = \frac{\pi}{6} \cdot (1 \text{ rad})
\]

\[
= \frac{\pi}{6} \cdot \frac{180^\circ}{\pi}
\]

\[
= 30^\circ
\]

3. 

\[
30^\circ
\]
4. (1 point) Convert $45^\circ$ to radians.

$$45^\circ = 45 \cdot (1^\circ)$$

$$= 45 \cdot \left( \frac{\pi}{180} \text{ rads} \right)$$

$$= \frac{5\pi}{20} \text{ rads}$$

$$= \frac{\pi}{4} \text{ rads}$$

5. (1 point) Convert $60^\circ$ to radians.

$$60^\circ = 60 \cdot (1^\circ)$$

$$= 60 \cdot \left( \frac{\pi}{180} \text{ rads} \right)$$

$$= \frac{6\pi}{180} \text{ rads}$$

$$= \frac{\pi}{3} \text{ rads}$$

6. (1 point) Convert $\frac{\pi}{2}$ rads to degrees.

$$\frac{\pi}{2} \text{ rads} = \frac{\pi}{2} \cdot (1 \text{ rad})$$

$$= \frac{\pi}{2} \cdot \frac{180^\circ}{\pi}$$

$$= 90^\circ$$