

Math 1613 - Trigonometry

Quiz #7 - 2011.09.08

Solutions

1. How does one define the trig functions sine and cosine in terms of arclength on the unit circle? Explicitly state what $\sin(s)$ and $\cos(s)$ are defined to be in this situation.

On the unit circle, $s = r\theta = \theta$, since $r = 1$. Thus $\sin(s) = y$ and $\cos(s) = x$.

2. Convert 330° to radian measure.

$$330^\circ = 330^\circ \cdot \frac{\pi \text{ rad}}{180^\circ} = \frac{11}{6}\pi \text{ rad}$$