

Math 1613 - Trigonometry

Quiz #5 - 2009.09.15

Solutions

Find exact values for the following trigonometric functions at the given angles.

1. $\sin\left(\frac{7\pi}{6}\right)$

$$\sin\left(\frac{7\pi}{6}\right) = -\sin\left(\frac{\pi}{6}\right) = -\frac{1}{2}$$

2. $\cos\left(\frac{7\pi}{4}\right)$

$$\cos\left(\frac{7\pi}{4}\right) = \cos\left(\frac{\pi}{4}\right) = \frac{1}{\sqrt{2}}$$

3. $\tan\left(\frac{2\pi}{3}\right)$

$$\tan\left(\frac{2\pi}{3}\right) = -\tan\left(\frac{\pi}{3}\right) = -\sqrt{3}$$

4. $\cos\left(-\frac{5\pi}{4}\right)$

$$\cos\left(-\frac{5\pi}{4}\right) = -\cos\left(\frac{\pi}{4}\right) = -\frac{1}{\sqrt{2}}$$

5. $\tan\left(\frac{4\pi}{3}\right)$

$$\tan\left(\frac{4\pi}{3}\right) = \tan\left(\frac{\pi}{3}\right) = \sqrt{3}$$