

Math 1613 - Trigonometry

Quiz #10 - 2009.10.20

Name: _____

Using just the following two identities:

$$\cos(a - b) = \cos(a) \cos(b) + \sin(a) \sin(b)$$

$$\cos(x) = \sin\left(\frac{\pi}{2} - x\right),$$

prove the following identity.

1. $\cos\left(\frac{\pi}{2} - x\right) = \sin(x)$

2. Using the first two identities and the identity from problem 1, show:

$$\sin(a + b) = \sin(a) \cos(b) + \cos(a) \sin(b)$$