MATH 116
HOMEWORK 04

BLAKE FARMAN
UNIVERSITY OF SOUTH CAROLINA

5.2

2. *Evaluate*

(a) $\cos(12\pi)$

(b) $\sin\left(\frac{5\pi}{2}\right)$

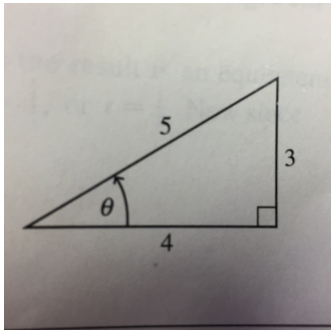
(c) $\sin\left(\frac{-9\pi}{2}\right)$

(d) $\cos(101\pi)$

4. *What is* $\cos(\theta+\pi)$ *in terms of* $\cos(\theta)$*? (Hint: Use the unit circle).*

6. *(a) In the triangle shown, calculate* $\sin(\theta)$ *and* $\cos(\theta)$*.*

(b) Calculate $\sin^2(\theta)+\cos^2(\theta)$*.*



5.3

Evaluate the following.

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

4. $\cos\left(\frac{-3\pi}{4}\right)$.

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8. $\cos\left(\dfrac{13\pi}{6}\right)$.

12. $\sin\left(\dfrac{29\pi}{6}\right)$.

5.4

4. *Graph the following functions over the interval* $(0, 2\pi)$*:*

(a) $y = \sin(2x)$.

(b) $y = \cos\left(\dfrac{3}{2}x\right)$.

(c) $y = \sin(\pi x)$.

10. *Graph* $y = 3\sin(2x) - 1$*, and find its amplitude, period, and frequency.*