Math 1613 - Trigonometry

Homework #6 - 2007.09.27

Due Date - 2007.10.04

Name: _____

---

1. Find the reference angle θ_R if θ has the given measure. Also, state which quadrant each of the original angles lies in.

a) $\frac{143\pi}{4}$

b) 840°

c) $-\frac{43\pi}{3}$

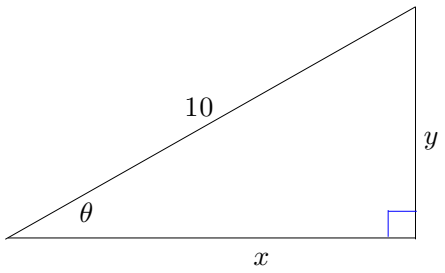
2. Find the exact value.

a) $\cos\left(-\frac{43\pi}{3}\right)$

b) $\csc\left(\frac{143\pi}{4}\right)$

c) $\sec\left(840^\circ\right)$

3. For this problem, please refer to the following figure.



a) If $\sin(\theta) = \frac{1}{2}$, what is y?

b) If $\cos(\theta) = \frac{1}{5}$, what is $\sin(\theta)$? (Solve this by the Pythagorean Theorem and the definition of $\sin(\theta)$).

c) Redo part b) but this time, use the fact that $\sin^2(\theta) + \cos^2(\theta) = 1$.

d) If $\tan(\theta) = 3$, what are x and y?