Evaluate without the use of a calculator:

$$\cos\left(\frac{16\pi}{3}\right)\tan^2\left(\frac{23\pi}{6}\right)+\csc\left(\frac{11\pi}{2}\right)+\sin^2\left(\frac{27\pi}{4}\right)$$

$= -\frac{2}{3}$

odd ccw

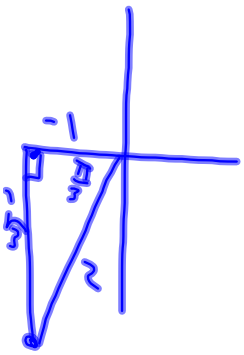
$\frac{15\pi}{3}+\frac{\pi}{3}$

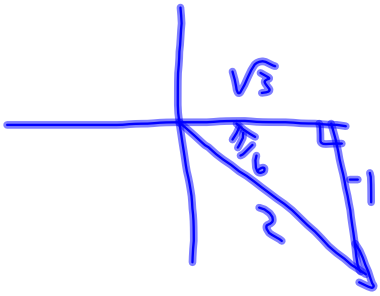
$\frac{24\pi}{6}-\frac{\pi}{6}$

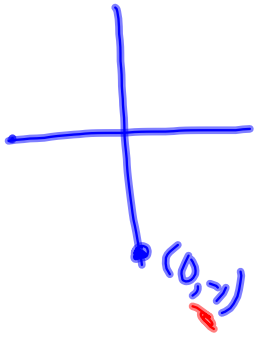
$4\pi-\frac{\pi}{6}$

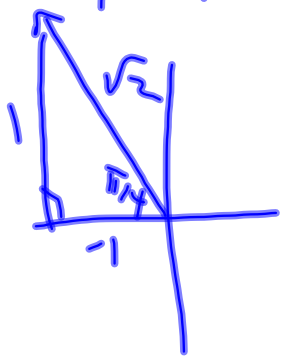
$\frac{10\pi}{2}+\frac{\pi}{2}$

$\frac{28\pi}{4}-\frac{\pi}{4}$









$$= \left(-\frac{1}{2}\right)\left(\frac{-1}{\sqrt{3}}\right)^2 + (-1) + \left(\frac{1}{\sqrt{2}}\right)^2$$

$$= -\frac{1}{2}\left(\frac{1}{3}\right) + (-1) + \frac{1}{2}$$

$$= -\frac{1}{6} - 1 + \frac{1}{2}$$

$$= \frac{-1-6+3}{6}$$

$$= -\frac{4}{6}$$

$$= -\frac{2}{3}$$

Homework: Worksheet - Sketching Angles in Radians.doc

Solutions...

1. $-\frac{5}{3}$

2. $\frac{-\sqrt{6}}{3}$

3. $-2-\sqrt{3}$

4. $\frac{-5}{3}$

5. $\frac{4+3\sqrt{3}}{6}$

6. $\frac{-10}{3}$

7. 0

8. $\frac{3+3\sqrt{3}}{-2}$

Due at the beginning of class tomorrow

Attachments

Worksheet - Sketching Angles in Radians.doc