

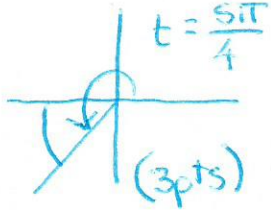
Show any relevant work.

For each problem, circle your final answer

1. (15 points) For each value of t given below, find the reference number t' and the coordinates of the terminal point determined by t . Include a reference angle sketch.

a. $t = \frac{5\pi}{4}$

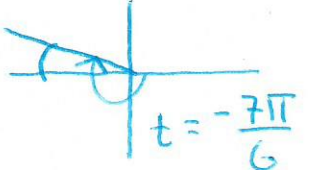
$t' = \frac{\pi}{4}$ (4pts)



(3pts)

b. $t = -\frac{7\pi}{6}$

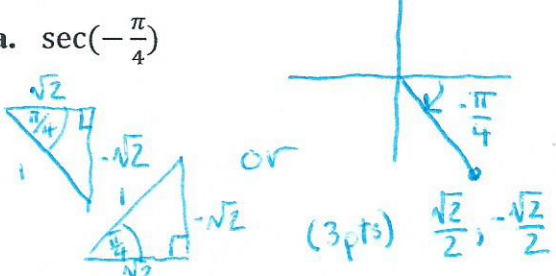
$t' = \frac{\pi}{6}$ (4pts)



(4pts)

2. (15 points) Find the exact value of each of the following. Include a reference angle sketch.

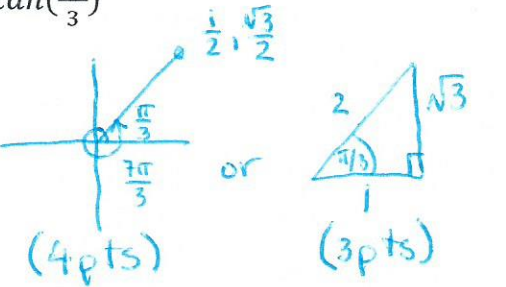
a. $\sec(-\frac{\pi}{4})$



(3pts)

$\sec(-\frac{\pi}{4}) = \frac{1}{\sqrt{2}/2} = \sqrt{2}$ (4pts)

b. $\tan(\frac{7\pi}{3})$



(3pts)

$\tan(\frac{7\pi}{3}) = \tan(\frac{\pi}{3}) = \frac{\sqrt{3}/2}{1/2} = \sqrt{3}$ (4pts)

3. (16 points) Suppose $\sin x = -\frac{8}{17}$ and $\cos x > 0$. Find the following: (Include a reference triangle)

a. $\sin(-x)$

$\sin(-x) = \frac{8}{17}$ (5pts)

b. $\tan(x)$

$\tan x = -\frac{8}{15}$ (5pts)

