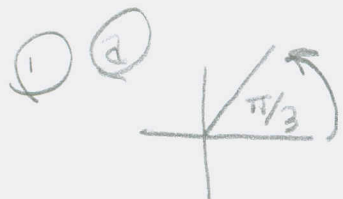
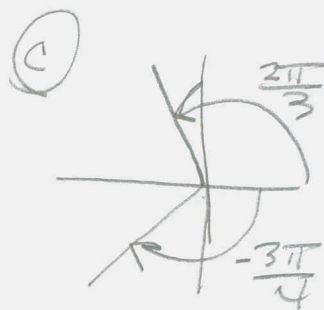
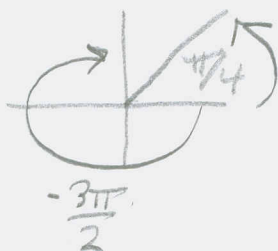


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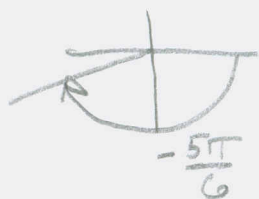
S1.1-1,3



③



⑤



①  $\frac{\pi}{3} = 60^\circ$

$\frac{\pi}{4} = 45^\circ$

$\frac{2\pi}{3} = 120^\circ$

$-\frac{5\pi}{6} \cdot \frac{180^\circ}{\pi \text{ rad}} = -150^\circ$

$-\frac{3\pi}{4} \cdot \frac{180^\circ}{\pi} = -270^\circ$

$-\frac{3\pi}{4} = -135^\circ$

③  $\frac{2\pi}{3}$  is coterminal with:

$\frac{2\pi}{3} + 2\pi = \frac{2\pi + 6\pi}{3} = \frac{8\pi}{3}$  and

$\frac{2\pi}{3} - 2\pi = \frac{2\pi - 6\pi}{3} = -\frac{4\pi}{3}$

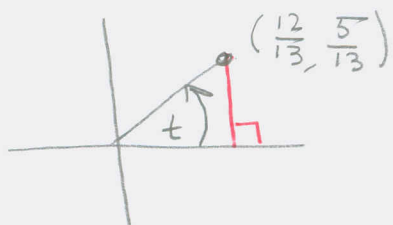
④  $45^\circ = \boxed{\frac{\pi}{4} \text{ radians}}$   $(-48.27^\circ) \left( \frac{\pi \text{ radians}}{180^\circ} \right) \approx \boxed{-8424704 \text{ rad.}}$

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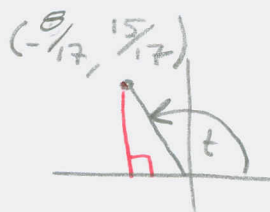
$85^\circ 18' 30'' = 85^\circ + (18 \text{ min}) \left( \frac{1^\circ}{60 \text{ min}} \right) + (30 \text{ sec}) \left( \frac{1^\circ}{3600 \text{ sec}} \right)$

$= 85^\circ + .3^\circ + .008\bar{3} = (85.308\bar{3}^\circ) \left( \frac{\pi \text{ radians}}{180^\circ} \right) \approx \boxed{1.48891 \text{ radians}}$

(5)

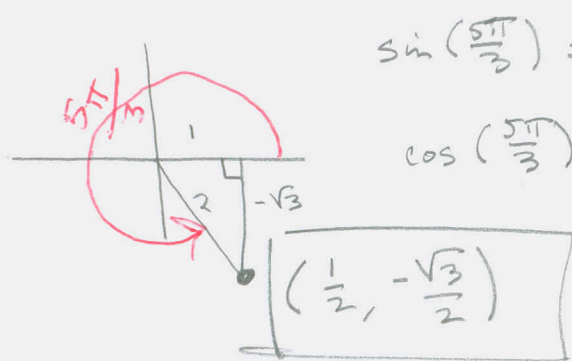


$$\begin{aligned} \sin t &= \frac{5}{13} & \csc t &= \frac{13}{5} \\ \cos t &= \frac{12}{13} & \sec t &= \frac{13}{12} \\ \tan t &= \frac{5}{12} & \cot t &= \frac{12}{5} \end{aligned}$$



$$\begin{aligned} \sin t &= \frac{15}{17} & \csc t &= \frac{17}{15} \\ \cos t &= -\frac{8}{17} & \sec t &= -\frac{17}{8} \\ \tan t &= -\frac{15}{8} & \cot t &= -\frac{8}{15} \end{aligned}$$

(6) Plot pt on unit circle corresponding to  $t = \frac{5\pi}{3}$



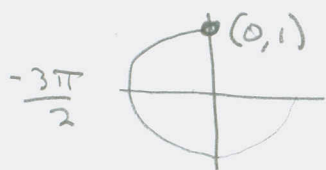
$$\begin{aligned} \sin\left(\frac{5\pi}{3}\right) &= y = -\frac{\sqrt{3}}{2} \\ \cos\left(\frac{5\pi}{3}\right) &= x = \frac{1}{2} \end{aligned}$$

$= 2\pi - \frac{\pi}{3}$  to "see"  
OR  $2\pi - \frac{5\pi}{3} = -\frac{\pi}{3}$  for reference angle.



(7)  $t = -\frac{3\pi}{2}$

$$\begin{aligned} \sin t &= 1 & \csc t &= 1 \\ \cos t &= 0 & \sec t &= \text{undefined} \\ \tan t &= \text{undefined} & \cot t &= 0 \end{aligned}$$



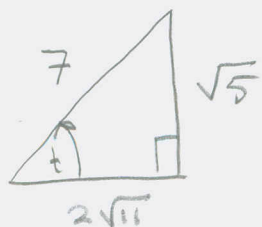
(8) Given  $\sin(t) = \frac{\sqrt{5}}{7}$ ; Then

$$\sin(-t) = -\sin(t) = \boxed{-\frac{\sqrt{5}}{7} = \sin(-t)}$$

$$x^2 + \sqrt{5}^2 = 7^2$$

$$x^2 = 49 - 5 = 44$$

$$x = \pm \sqrt{44} = \pm 2\sqrt{11}$$



EVEN

$$\cos(t) = \frac{2\sqrt{11}}{7}$$

$$\cos(-t) = \frac{2\sqrt{11}}{7}$$

Question is

poorly posed, because we don't know if  $x = +2\sqrt{11}$  OR  $-2\sqrt{11}$ !