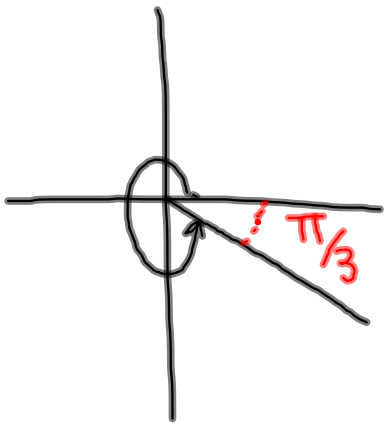
Questions from Homework

③ c)



Quad 4

$\frac{2\pi}{1} - \frac{\pi}{3}$

$\frac{6\pi}{3} - \frac{\pi}{3}$

$\boxed{\frac{5\pi}{3}}$

⑧ f) $-\frac{3}{2}\pi$ $\qquad -2\pi \leq \theta \leq 2\pi$

$A_c = A + 2\pi k \;, k \in I$

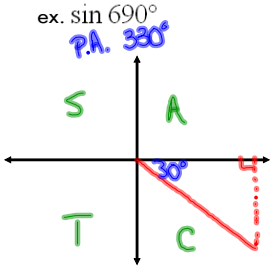
$= -\frac{3\pi}{2} + 2\pi$

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

$= \boxed{\frac{\pi}{2}}$

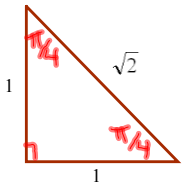
Sketching Angles in Radians

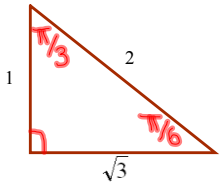
ex. $\sin 690°$



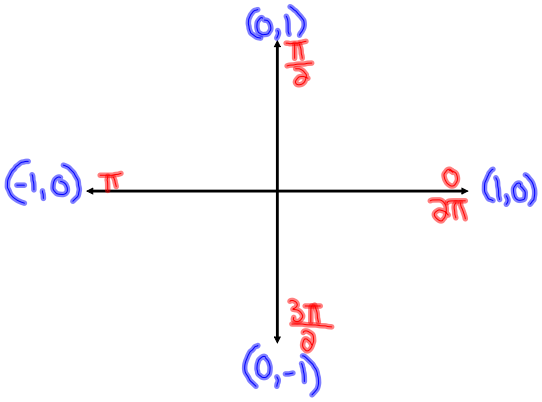
$\sin 690° = -\frac{1}{2}$

Special Angles (in radians)



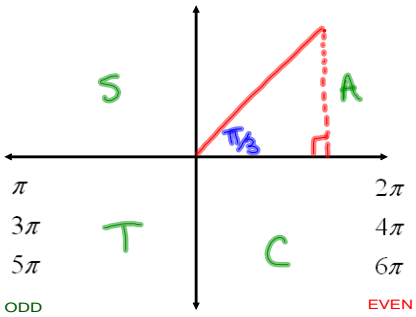


Quadrantal Angles



$\sin\theta = y$
$\cos\theta = x$
$\tan\theta = y/x$
$\csc\theta = 1/y$
$\sec\theta = 1/x$
$\cot\theta = x/y$

Ex. $\cos\frac{13\pi}{3} = +\frac{1}{2}$

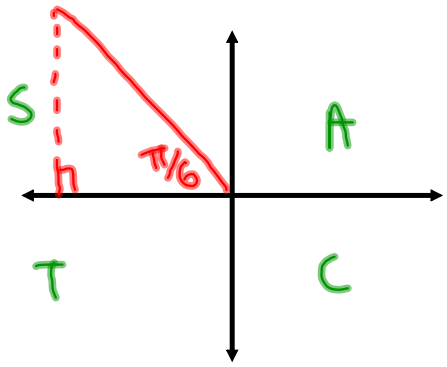


$\cos\frac{13\pi}{3}$ ← Break it apart

$\frac{12\pi}{3}, \frac{\pi}{3}, \frac{\pi}{3}$

4π

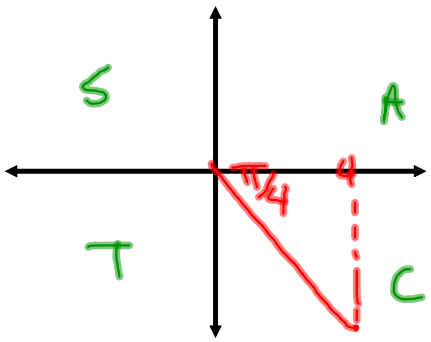
Ex. $\tan\frac{17\pi}{6}$ = $\frac{-1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$



$\frac{16\pi}{6}, \frac{17\pi}{6}, \frac{18\pi}{6}$

3π

Ex. $\sin\frac{15\pi}{4}$ = $\frac{-1}{\sqrt{2}} = -\frac{\sqrt{2}}{2}$

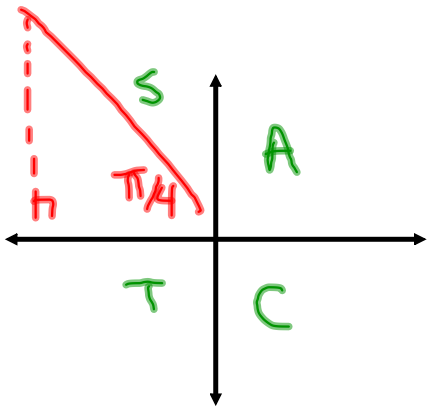


$\frac{14\pi}{4}, \frac{15\pi}{4}, \frac{16\pi}{4}$

4π

Ex. $\cos\left(-\frac{21\pi}{4}\right)$ = $\frac{-1}{\sqrt{2}} = -\frac{\sqrt{2}}{2}$

PA: $\left(\frac{3\pi}{4}\right)$



$\frac{2\pi}{4}, \frac{3\pi}{4}, \frac{4\pi}{4}$

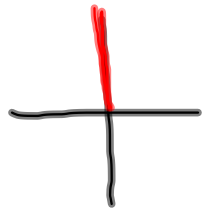
π

Evaluate without the use of a calculator:

$$\sin\frac{9\pi}{2} - \cos^2\left(\frac{29\pi}{6}\right)\tan\left(\frac{15\pi}{4}\right)$$

$\frac{8\pi}{2}, \frac{9\pi}{2}, \frac{10\pi}{2}$

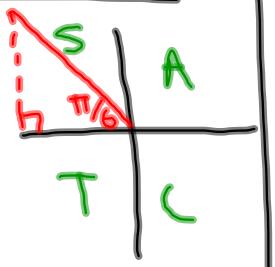
$4\pi \qquad 5\pi$



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

$\frac{28\pi}{6}, \frac{29\pi}{6}, \frac{30\pi}{6}$

5π

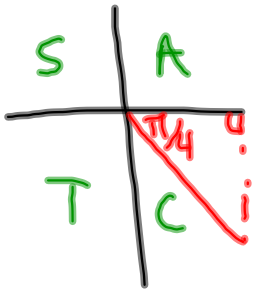


$1 - \left(\frac{3}{4}\right)\left(\frac{-1}{1}\right)$

$1 - \left(\frac{-3}{4}\right)$

$\frac{14\pi}{4}, \frac{15\pi}{4}, \frac{16\pi}{4}$

4π



$1 + \frac{3}{4}$

$\boxed{\frac{7}{4}}$

Homework

Red Text Pg 187

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