AP CALCULUS
QUIZ 5 NAME: PERIOD:
5 POINTS

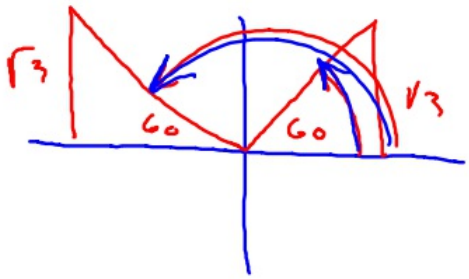
You may NOT use your calculator.

Solve the following equation.

$$\sin 2x = \frac{\sqrt{3}}{2} \text{ on } [0, \pi].$$

$2x = \frac{\pi}{3}$ or $2x = \frac{2\pi}{3}$

$x = \frac{\pi}{6}$ $x = \frac{\pi}{3}$



$\sin 2x \qquad \pm \frac{\sqrt{3}}{2}$

$\cos 2x \qquad \pm \frac{1}{2}$

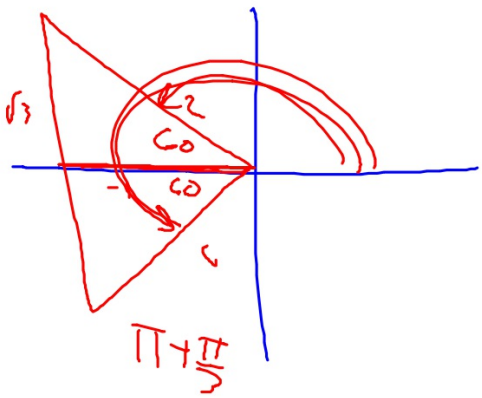
$\pm \frac{1}{\sqrt{2}}$

$[0, \pi]$

$\cos 2x = -\frac{1}{2}$

$2x = \frac{2\pi}{3}$ or $2x = \frac{4\pi}{3}$

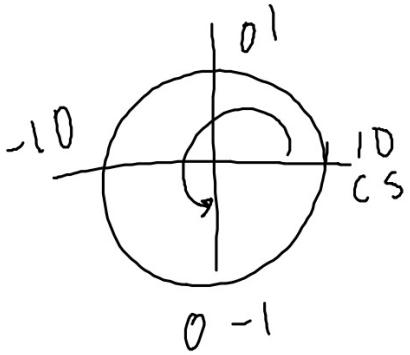
$x = \frac{\pi}{3}$ $\qquad x = \frac{2\pi}{3}$



$\sin 2x = -1 \qquad [0, \pi]$

$2x = \frac{3\pi}{2}$

$x = \frac{3\pi}{4}$



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