

AP CALCULUS
QUIZ 5
5 POINTS

NAME:

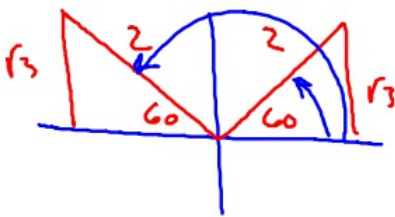
PERIOD:

You may NOT use your calculator.

Solve the following equation.

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

$$2x = \frac{\pi}{3} \quad \text{or} \quad 2x = \frac{2\pi}{3}$$
$$x = \frac{\pi}{6} \quad \quad \quad x = \frac{\pi}{3}$$

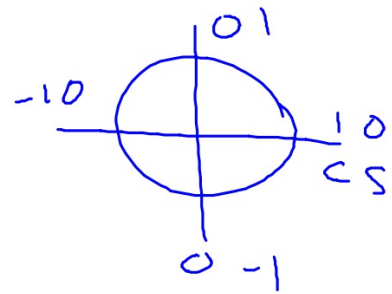


$$\begin{array}{ll} \sin(2x) & \pm \frac{\sqrt{3}}{2} \\ \cos(2x) & \pm \frac{1}{2} \end{array} \quad [0, \pi]$$

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

$$\sin 2x = 0 \quad [0, \pi]$$

$$\begin{array}{lll} 2x = 0 & \text{or } 2x = \pi & \text{or } 2x = 2\pi \\ x = 0 & x = \frac{\pi}{2} & x = \pi \end{array}$$



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