

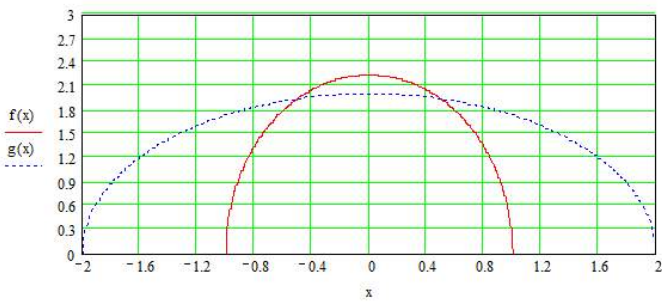
NAME ARIKPO DEBORAH KEDEAYE

DEPT MECHANICAL ENGINEERING

MAT NO 18/ENG06/012

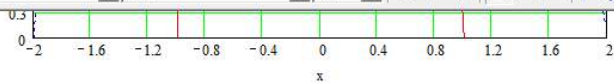
$$f(x) := \sqrt{5 - 5x^2}$$

$$g(x) := \sqrt{4 - x^2}$$



$$x := 0.5009$$

$$y := 1.9363$$



$$x := 0.5009$$

$$y := 1.9363$$

$$\left(\frac{d}{dx}f(x)\right) = -1.294$$

$$\left(\frac{d}{dx}g(x)\right) = -0.259$$

$$\theta_x := \operatorname{atan}\left(\frac{d}{dx}f(x)\right)$$

$$\theta_x = -52.305 \text{ deg}$$

$$\theta_y := \operatorname{atan}\left(\frac{d}{dx}g(x)\right)$$

$$\theta_y = -14.504 \text{ deg}$$

$$\text{magnitude} := \theta_y - \theta_x$$

$$\text{magnitude} = 37.801 \text{ deg}$$