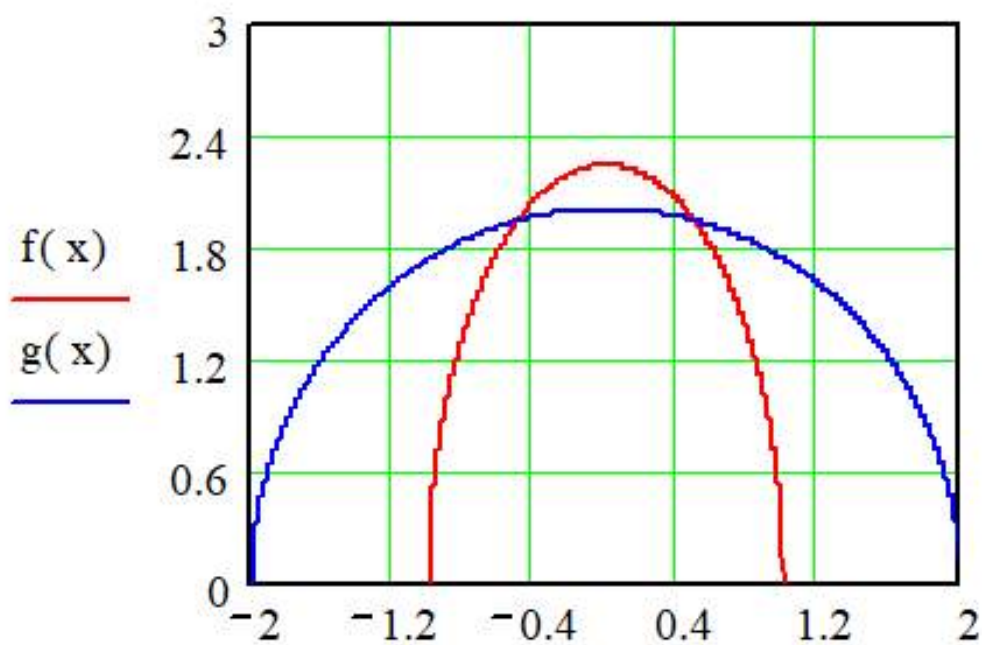




$$f(x) := \sqrt{5 - 5x^2}$$

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



using trace to find  $x$  and  $y$

$$x := 0.5$$

$$y := 1.9365$$

differentiating  $f(x)$ , where  $x=0.5$  and  $y=1.9365$


$$\frac{d}{dx}f(x) = -1.291$$

$$\tan\theta_1 := \frac{d}{dx}f(x)$$

$$\theta_1 := \text{atan}\left(\frac{d}{dx}f(x)\right)$$

$$\theta_1 = -52.239 \text{ deg}$$

$$\tan\theta_2 := \frac{d}{dx}g(x)$$


$$\tan\theta_2 = -0.258$$

$$\theta_2 := \operatorname{atan}\left(\frac{d}{dx}g(x)\right)$$

$$\theta_2 = -14.478 \text{ deg}$$

$$\text{magnitude} := \theta_2 - \theta_1$$

$$\theta_2 - \theta_1 = 37.761 \text{ deg}$$