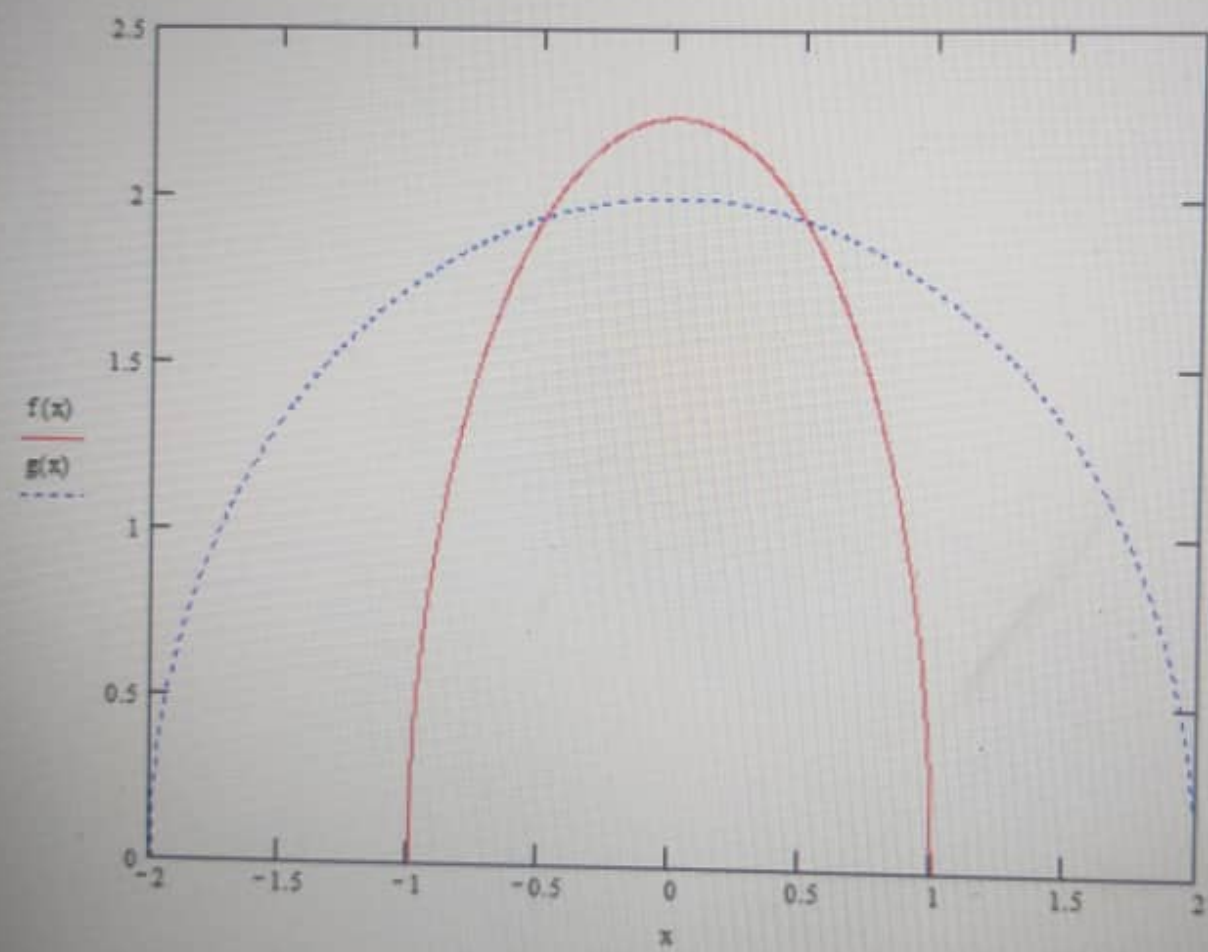


$$g(x) := \sqrt{4 - x^2}$$

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



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$$5x^2 + y^2 = 5, \quad x^2 + y^2 = 4$$

$$y^2 = 5 - 5x^2, \quad y^2 = 4 - x^2$$

$$5 - 5x^2 = 4 - x^2$$

$$5 - 4 = -x^2 + 5x^2$$

$$1 = 4x^2$$

$$x_1 = \frac{1}{2}, \quad x_2 = -\frac{1}{2}$$

$$J_1^2 = 5 - 5x^2 \quad J_2^2 = 5 - 5x^2$$

$$J_1 = \sqrt{5 - 5x^2} \quad J_2 = \sqrt{5 - 5x^2}$$

$$= \sqrt{5 - 5\left(\frac{1}{2}\right)^2} \quad = \sqrt{5 - 5\left(-\frac{1}{2}\right)^2}$$

$$= 1.94$$

$$10x + 2y \frac{dy}{dx} = 0$$

$$\frac{dy}{dx} = -10x$$

$$2y$$

$$\frac{dy}{dx} = \frac{-10(0.5)}{2(1.94)}$$

$$\frac{dy}{dx} = -1.29$$

$$\theta = \tan^{-1}(-1.29)$$

$$\theta_1 = 52.22$$

$$2x + 2y \frac{dy}{dx} = 0$$

$$\frac{dy}{dx} = -2x/2y$$

$$\frac{dy}{dx} = \frac{-2(0.5)}{2(1.94)}$$

$$= -0.26$$

$$\therefore \theta_2 = \tan^{-1}(-0.26)$$

$$= -14.57^\circ$$

The Total angle = $\theta_2 - \theta_1$

$$= -14.57 - 52.22$$

$$= -66.79 = -31.65^\circ$$