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

Solve it Simultaneously

$1 \times 5x^2+y^2=5$
$1 \times x^2+y^2=4$
$5x^2+y^2=5$
$-x^2+y^2=4$
$4x^2 = 1$
$\frac{4x^2}{4} = \frac{1}{4}$
$x^2 = \frac{1}{4}$
$x = \sqrt{1/4} = 1/2$

Substitute $x=1/2$ in equation ②
$(1/2)^2+y^2=4$
$1/4+y^2=4$
$y^2=4-1/4$
$y^2=3\,3/4$
$y=\sqrt{3\,3/4}$
$=\sqrt{15/2}$

$\tan\theta = dy/dx$

Differenciate Equation ①
$5x^2+y^2=5$
$10x+2y\,dy/dx=0$
$\frac{2y\,dy/dx}{2y} = \frac{-10x}{2y}$
$= \frac{-5x}{y}$

Substitute $x=1/2$ and $y=\sqrt{15/2}$
$dy/dx = \frac{-5(1/2)}{\sqrt{15/2}}$
$=1.291$

$\tan\theta_1 = dy/dx$
$\theta_1 = \tan^{-1} dy/dx$
$\theta_1 = \tan^{-1}(-1.291)$
$= -52.239$

Differenciate eqn ②
$x^2+y^2=4$
$2x+2y\,dy/dx=0$
$\frac{2y\,dy/dx}{2y} = \frac{-2x}{2y}$
$\frac{dy}{dx} = \frac{-x}{y}$
$\frac{-1/2}{\sqrt{15/2}} = -0.258$

$\frac{dy}{dx} \tan\theta_2 = dy/dx$
$\theta_2 = \tan^{-1} \frac{dy}{dx} = -14.775$

$\theta_2-\theta_1 = -52.239(-) - 14.775$
$= -52.239 + 14.775$
$= -37.7615$
$|\theta_2-\theta_1| = 37.7615$
$\simeq 37.76°$

-0.5
1.936

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

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