

QUESTION

A curve is defined parametrically by  $x = \sin t$  and  $y = \cos t$ . Find  $\frac{dy}{dx}$  in terms of  $t$ .

ANSWER

$$\frac{dy}{dx} = \frac{\frac{dy}{dt}}{\frac{dx}{dt}} = -\frac{\sin t}{\cos t} = -\tan t$$