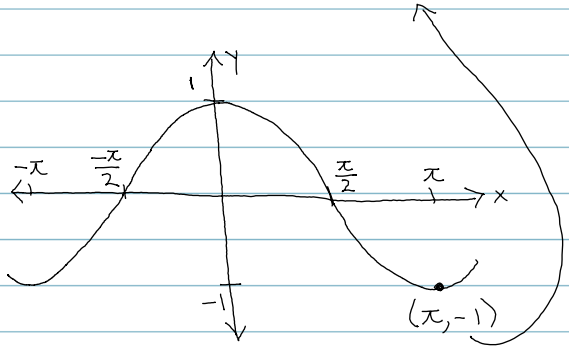
Introduction to Trigonometric Functions

Find the equation of the line tangent to the curve $y = \sin(x)$ at $(\pi, 0)$. Then, sketch both the curve and the tangent line.

$$\frac{d}{dx}\sin x = \cos x$$

$$\frac{d}{dx}\cos x = -\sin x$$

$$\text{slope} = \cos(\pi) = -1$$



tangent line: $y = -(x - \pi)$.