

For an angle  $\theta$  in standard position, with the terminal side intersecting the unit circle at the point  $(x, y)$ , the value of the tangent function is given by  $\tan \theta = \frac{y}{x}$ . Therefore:

$$\tan 30^\circ = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$$