Draw 210° in standard position. The terminal side is in the third quadrant and the reference angle is 30°. Use the $30^\circ - 60^\circ - 90^\circ$ triangle to find the value of this function at the reference angle:

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

Use the signs of *x* and *y* in the third quadrant to determine the sign of tangent:

$$\tan 210^\circ = \frac{y}{x} = \frac{(-)}{(-)} = (+)$$

So: $\tan 210^\circ = +\frac{\sqrt{3}}{3}$