

You may have correctly determined that the reference angle is  $30^\circ$  and then confused tangent with cotangent or made a mistake while simplifying. To find the correct value of  $\tan 210^\circ$  you must find the value of  $\tan 30^\circ$  and then determine the correct sign. To determine the sign, use the signs of  $x$  and  $y$  in the third quadrant, remembering

that:  $\tan \theta = \frac{y}{x}$