

You may have correctly determined that the reference angle is 60° and then confused secant with cosecant. To find the correct value of $\sec 120^\circ$ you must find the value of $\sec 60^\circ$ and then determine the correct sign. To determine the sign, use the signs of x and y in the second quadrant, remembering that $\sec \theta = \frac{1}{x}$. The correct answer is -2 .