

You may have correctly determined that the reference angle is 45° and then confused cosine with cotangent. To find the correct value of $\cos 315^\circ$ you must find the value of $\cos 45^\circ$ and then determine the correct sign. To determine the correct sign, use the signs of x and y in the fourth quadrant, remembering that: $\cos \theta = \frac{x}{r}$