

**Algebra 2**  
**Unit: Trigonometric Functions**  
**Section: Trigonometric Values in All Four Quadrants**

**Example: Finding Cosine and Sine in Quadrants II–IV**

**Problem**

Find the point P cosine one hundred twenty degrees, sine one hundred twenty degrees on the unit circle.

**Solution**

First draw the special triangle. Notice that one hundred twenty degrees is in quadrant two. You can draw a thirty-sixty-ninety triangle from the given one hundred twenty degrees. Since we are in quadrant two the x-value is now negative.

Cosine of one hundred twenty degrees is negative one-half. Sine of one hundred twenty degrees is square root of three divided by two.