Angles of Rotation and the Unit Circle
One Counterclockwise Rotation

Name: _____

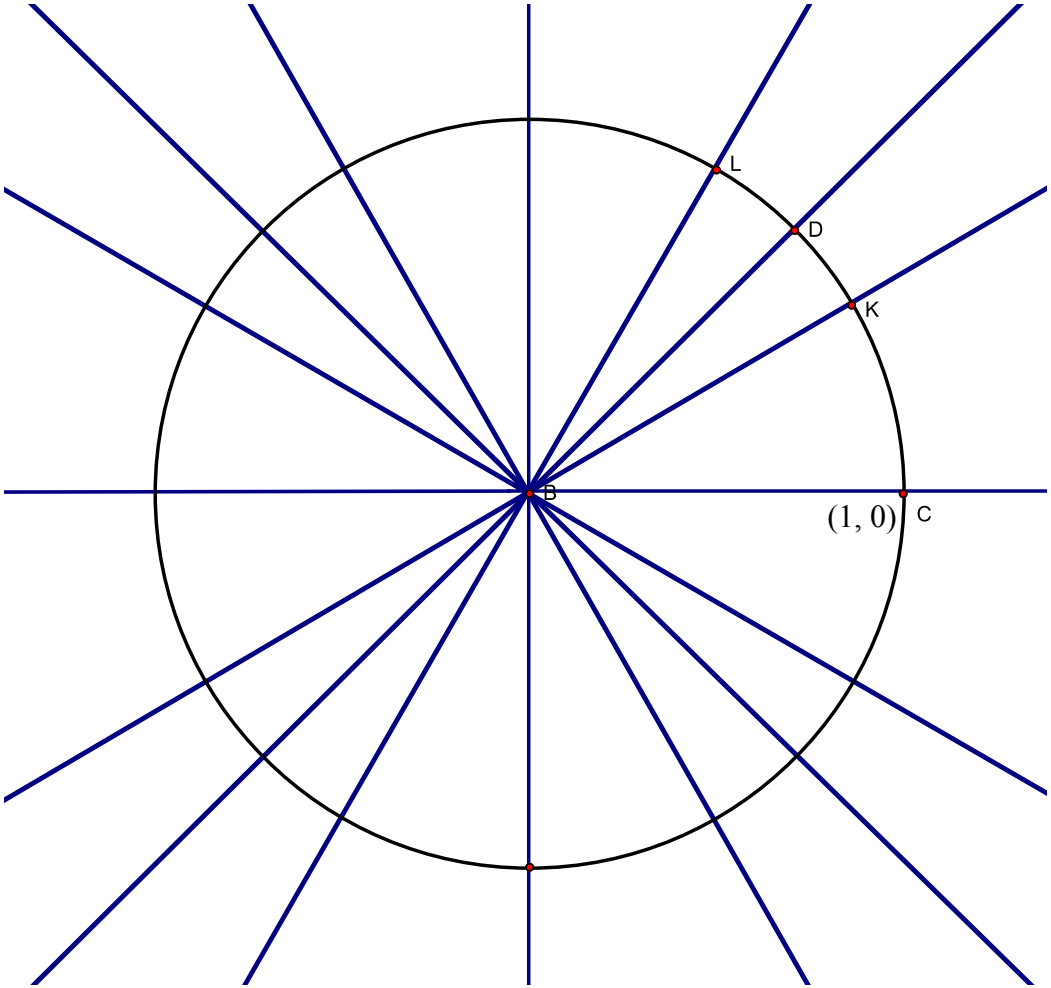
Period: _____ **Date:** _____

Below is a circle with a radius of 1 unit, known as the **unit circle**. Three angle measures are given in standard position with a **counterclockwise** rotation. Use these angles to write the other angle measures in standard position in both **degrees** and **radians**. Use special right triangles to identify the **coordinates** of the points of intersections of the lines and circle. *Take notes on any patterns you notice in the angle measures and coordinates.*

$m\angle LBC = 60^\circ$

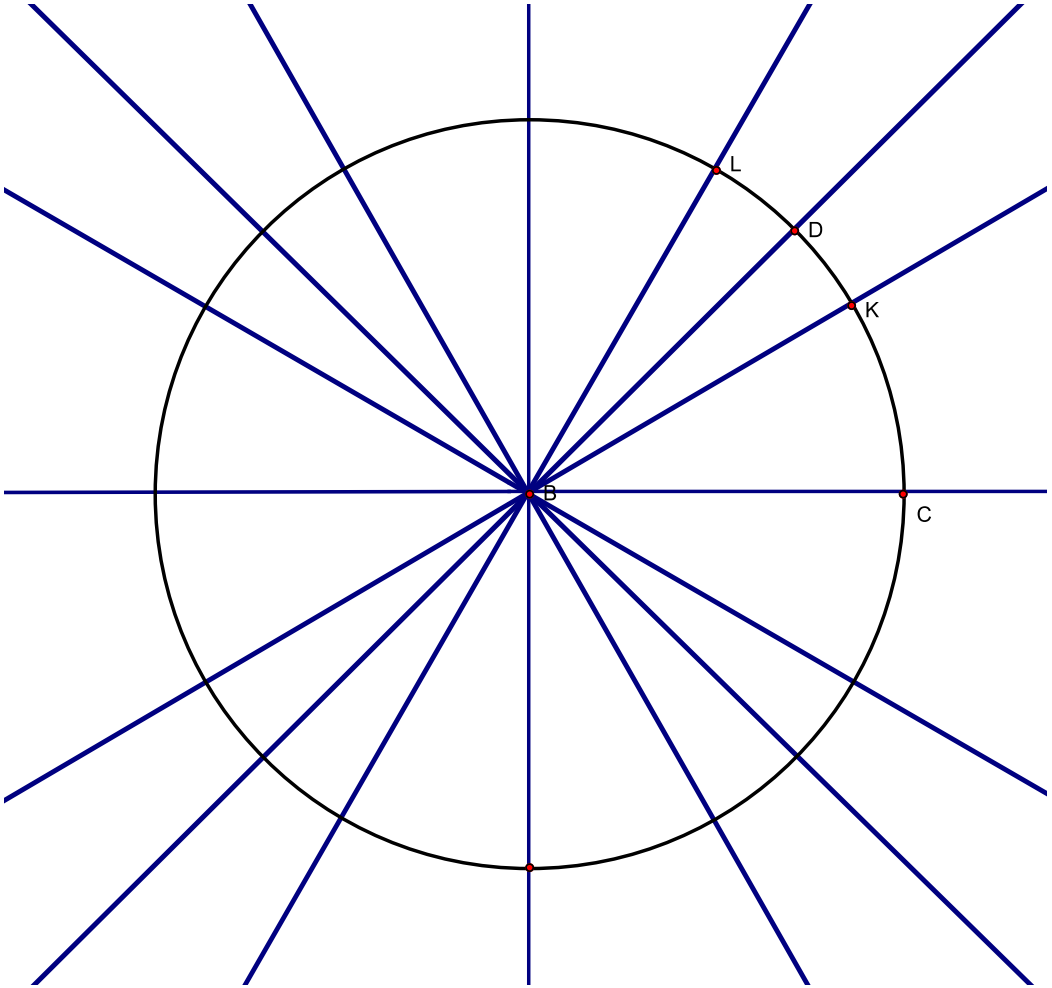
$m\angle DBC = 45^\circ$

$m\angle KBC = 30^\circ$



Angles of Rotation and the Unit Circle
Two Counterclockwise Rotations

Use these angles to write the other angle measures with **two** counterclockwise rotations in standard position in both **degrees** and **radians**. Use special right triangles to identify the **coordinates** of the points of intersections of the lines and circle.



$m\angle LBC = 60^\circ$

$m\angle DBC = 45^\circ$

$m\angle KBC = 30^\circ$

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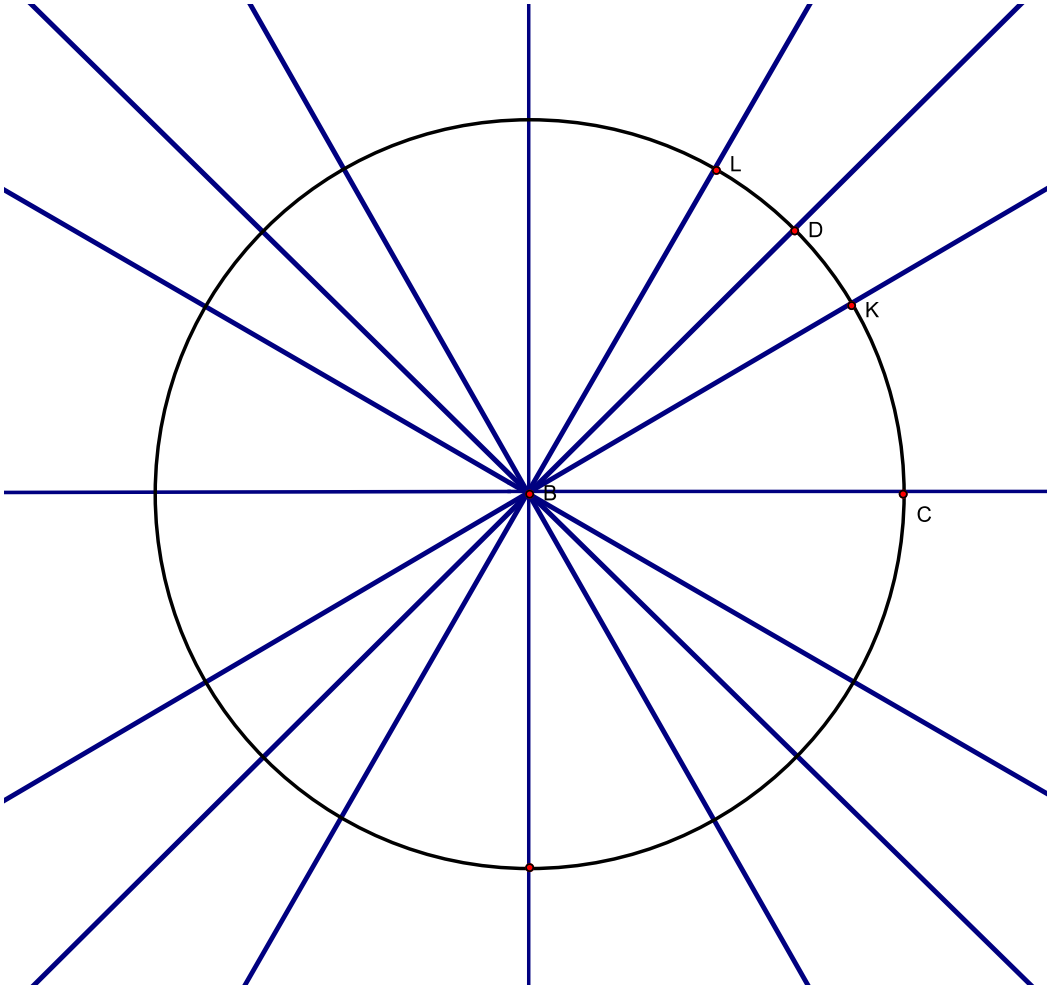
Use these angles to write the other angle measures with one **clockwise** rotation in standard position in both **degrees** and **radians**. Use special right triangles to identify the **coordinates** of the points of intersections of the lines and circle.



m∠LBC = 60°

m∠DBC = 45°

m∠KBC = 30°