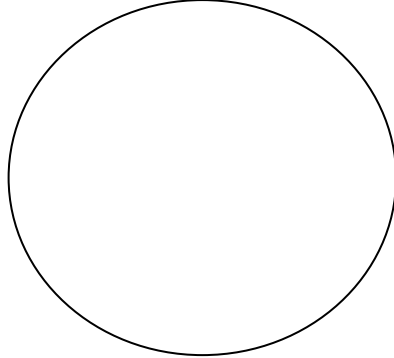


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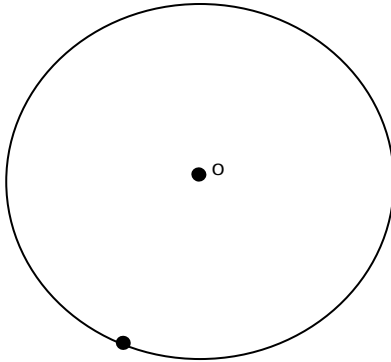
Inscribing Shapes in Circles - Step-by-Step Lesson

Construct the largest regular hexagon that will fit in the circle below.

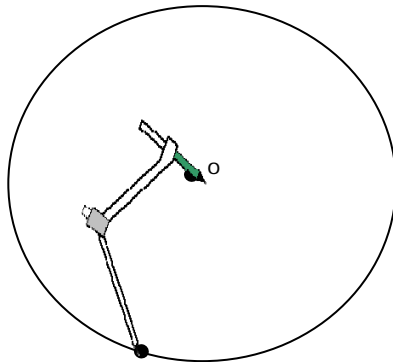


Explanation:

1) Start by making a point anywhere on the circle. I like to make it appear in the center. We'll call it point O. This will be the first vertex of the hexagon.



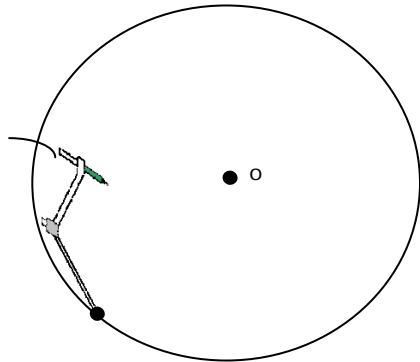
2) Place the compass point on point O. Set the compass to a distance that reaches the circle. We have formed a radius.



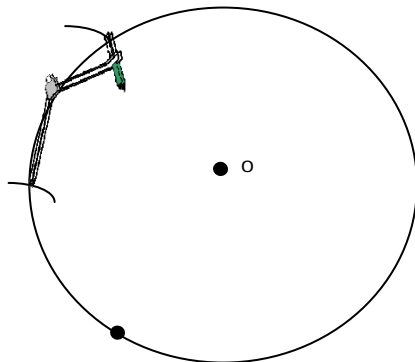
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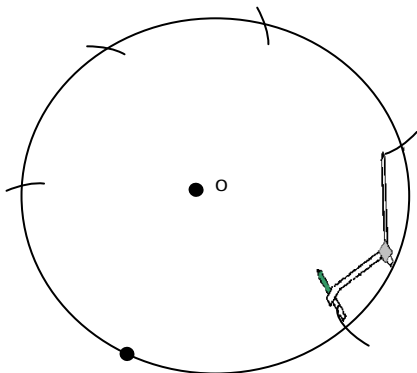
3. Place the compass point on the radius arc and mark an arc on circle. This will be the next vertex of the hexagon. The side length of a hexagon is equal to its circum radius; the distance from the center to a vertex.



4. Move the compass point on the arc that we formed and draw another arc. We just formed the third vertex of the hexagon.



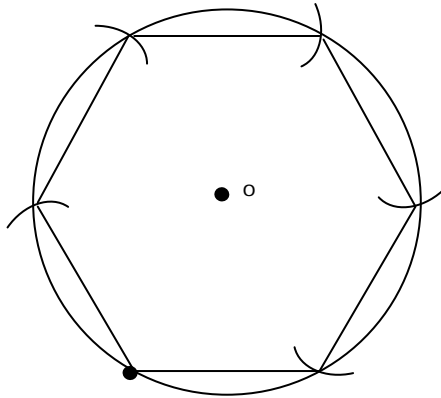
5. Continue this procedure until you have all six vertices. Hexagons have six sides.



Name _____

Date _____

6. Grab your ruler and draw lines between each of the pairs of vertices. This will form six lines.



Done. These lines form a regular hexagon inscribed in the given circle. Pretty neat huh?

