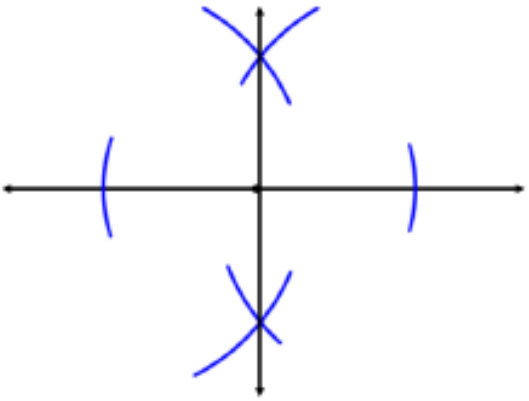
Constructing Inscribed Polygons

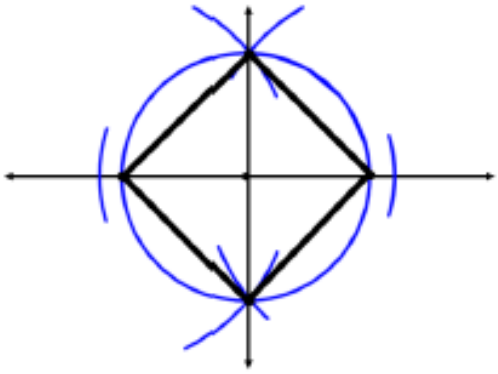
SOL G.4 (2009)

Constructing Square Inscribed in a Circle

1. Begin with a point on a line.



2. Construct a perpendicular bisector through the point on the line.



3. Center the compass at the intersection of the perpendicular lines and draw a complete circle.

4. The intersections of the lines and circle become the vertices of the square.

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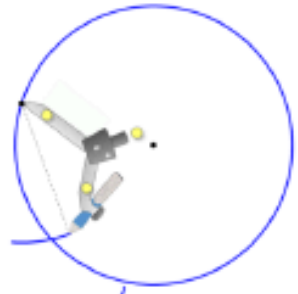
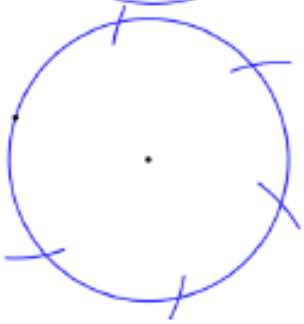
Constructing a Regular Hexagon Inscribed in a Circle

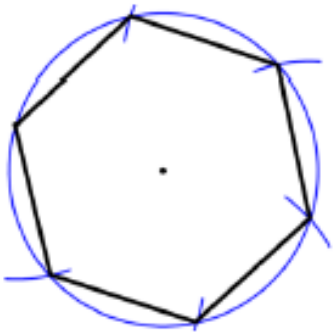


1. Begin by constructing a circle.



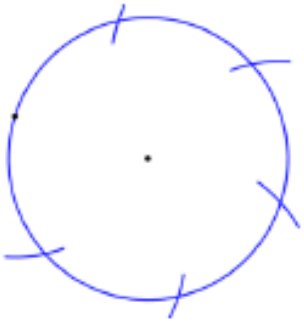
2. Keep the compass setting equal to the radius of the circle. Mark a point on the circle. This is the first vertex of the hexagon. Then mark an arc intersecting the circle. This is another vertex of the hexagon.

3. Continue marking vertices the whole way around the circle.

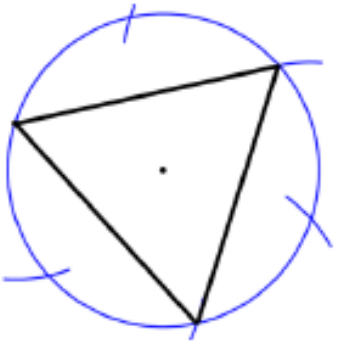


4. Draw segments to connect the vertices and create the hexagon.

Constructing an Equilateral Triangle Inscribed in a Circle



1. Begin the construction by drawing a circle and marking the same six vertices needed for a regular hexagon.



2. Draw segments to connect *every other* vertex. This created an equilateral triangle.

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