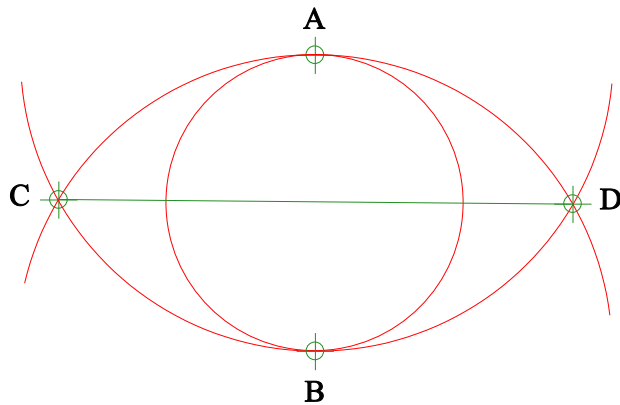


## How to Make an Octagon with a Compass and Ruler, Method 2



1 – The first step in making a pentagon is to make a circle, with a diameter the size of the pentagon, with your compass.

2 – Next you need to find the center lines, both horizontal and vertical.

a – Using your compass, draw an arc with the center on point A and the diameter of point A to B.

b - Using your compass, draw another arc centered on point B and the diameter of point B to A

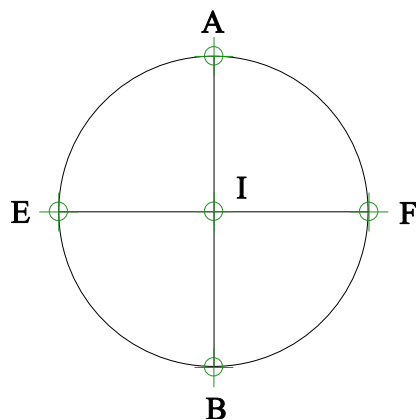
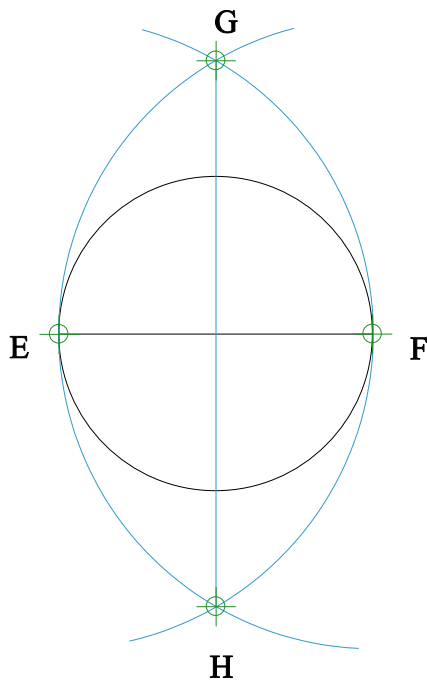
c – Draw a line between the arc intersections C & D.

d - Using your compass, draw an arc with the centered on point E and the diameter of point E to F.

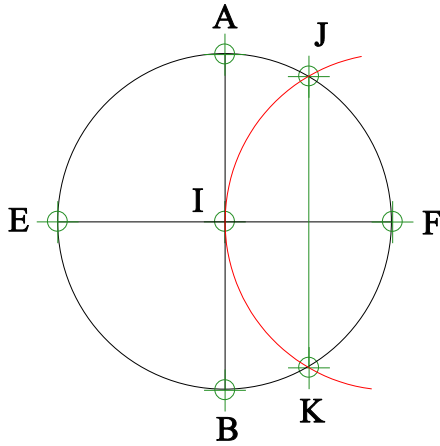
e - Using your compass, draw another arc with the centered on point F and the diameter of point E to F.

f – Draw a line between the arc intersections G & H.

G – Erase the arcs and trim the center lines to the circle.

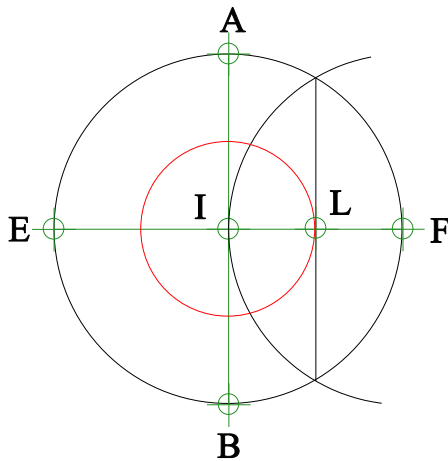


The intersection of these two lines is the center of the circle, point I.



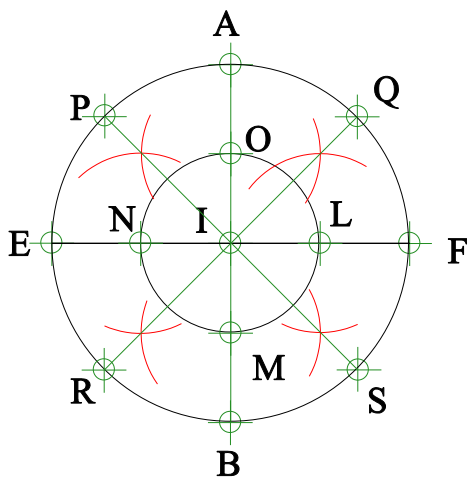
3 – Draw an arc using point F as center and line F – I as radius crossing the circle at both ends.

4 – Draw a line between points J and K.



5 – Draw a circle with point I as center and line I – L as radius.

6 – Remove the arc and line as they are no longer needed.



7 – Draw two arcs, one above and one below line I – F, with point L as center and line I – L as radius

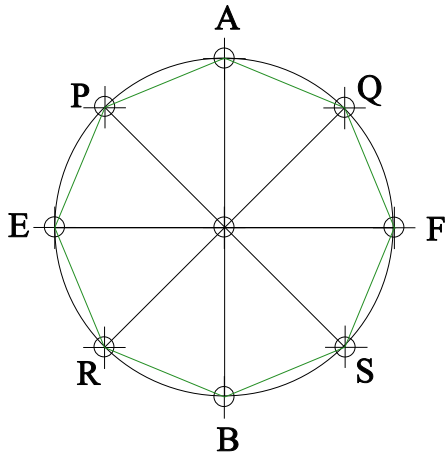
8 - Draw two arcs, one left and one right of line A – I, with point O as center and line I – O as radius

9 - Draw two arcs, one above and one below line E – I, with point N as center and line I – N as radius

10 - Draw two arcs, one left and one right of line I – B, with point M as center and line I – M as radius

11 – Draw line P – S thru the arc intersections

12 – Draw line R – Q thru the arc intersections



13 – Draw line between points A and Q

14 - Draw line between points Q and F

15 - Draw line between points F and S

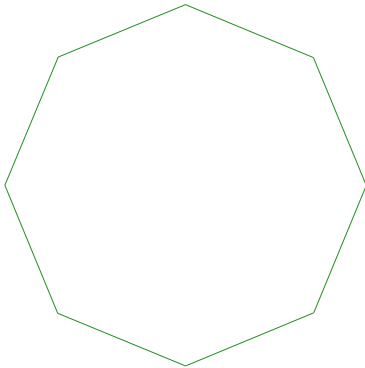
16 - Draw line between points S and B

17 - Draw line between points B and R

18 - Draw line between points R and E

19 - Draw line between points E and P

20 - Draw line between points P and A



21 – Remove the construction lines leaving the octagon.