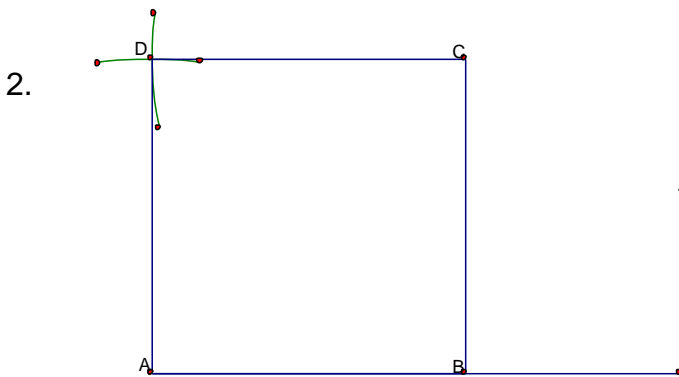
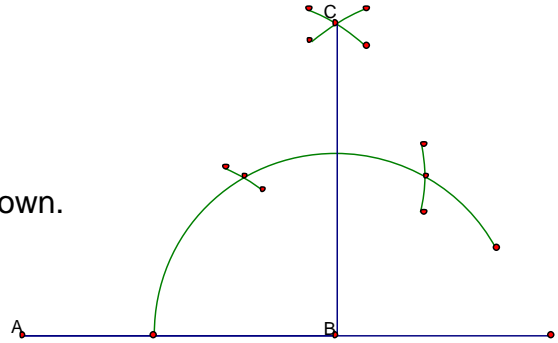


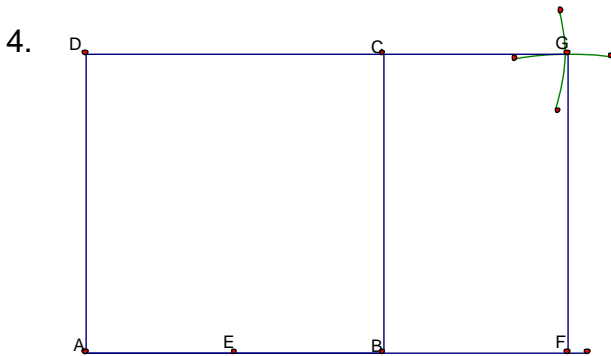
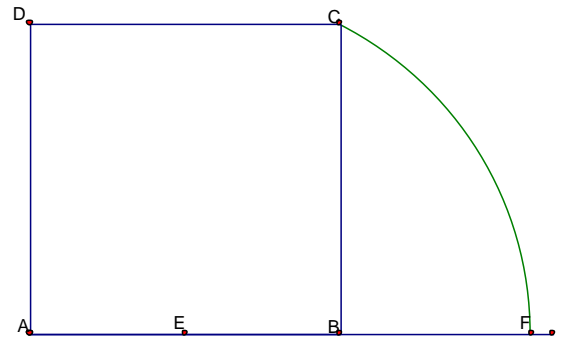
How to construct The Spiral of Archimedes

1. First we need to construct a square of 10 cm.
 Draw a 20 cm line.
 Mark the left end of your line A.
 Mark off 10 cm from A and label it B.
 Construct a 10 cm perpendicular from B as shown.



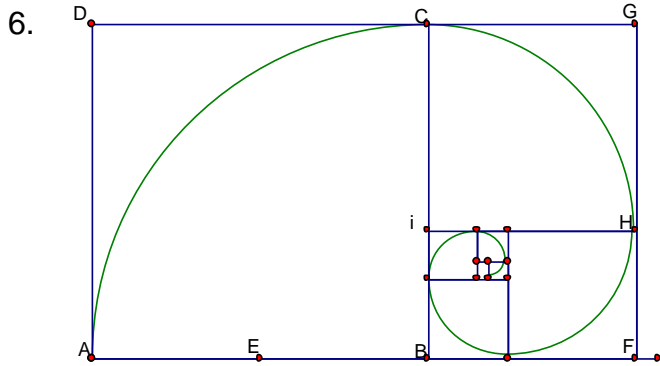
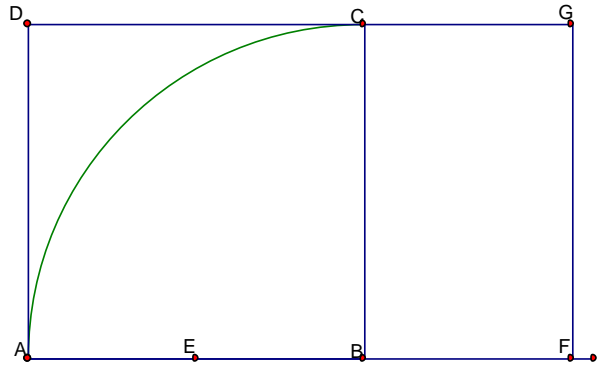
Label the top of your perpendicular line C.
 Set your compass to the length of AB and using A and C as centers, construct point D, the top left corner of the square ABCD.

3. Bisect the line AB. Label it E.
 Draw an arc centered on E from D to BA extended.
 Label it F.



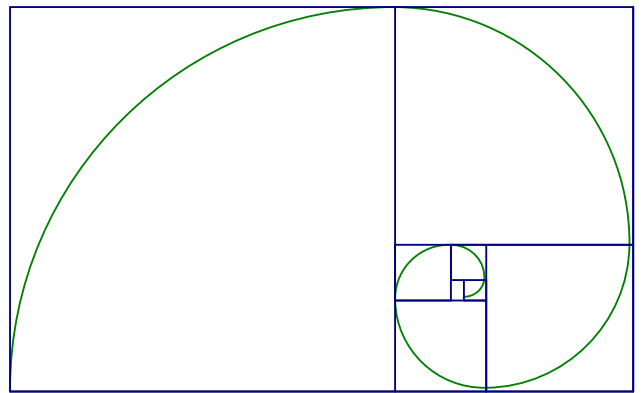
Set your compass to the length BF.
 Make an arc from C.
 Set your compass to the length of BC.
 Make an arc from F.
 Label the new point G.
 Draw the lines FG and CG.
 You now have a golden rectangle AFGD.
 (BFGC is also a golden rectangle)

5. Draw a quarter circle centered on B from A to C.



Construct a square in the top right hand corner of the golden rectangle AFGD
 Draw a quarter circle center I as shown.
 Continue this process as long as possible to produce the Spiral of Archimedes.

7. Erase any construction lines.



8. Colour your diagram.

