

LESSON # 41

Constructing Regular Polygons from a Given Side

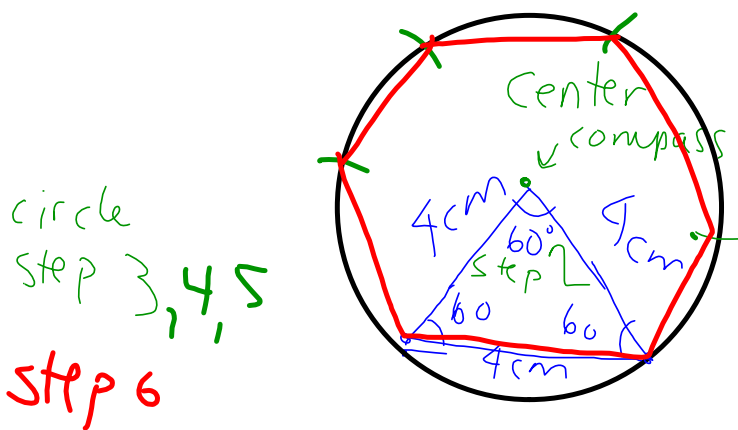
STEPS

1. Find how many isosceles triangles are in the polygon.
2. Construct one isosceles triangle with the appropriate angles and sides.
3. Draw the circle using the top vertex as a center and one of the other vertices as a radius.
4. Measure with your compass the length of the bottom of your triangle, (now a chord within the circle).
5. Going around the circle make arcs.
6. Draw the sides of your polygon.

Example 1 ~ Construct a regular hexagon with sides 4cm

Step 1 Easy ~ hexagon = 6 sides = 6 triangles

Step 1 $\frac{360}{6} = 60^\circ$ central angle



Example 2 ~ Construct a regular pentagon with sides 5cm. Back of this page

