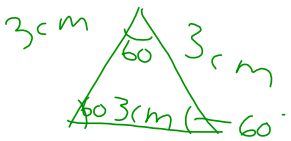
Architecture

LESSON # 40 ~ Constructing Regular Polygons

A regular polygon is **equilateral** and **equiangular**. This means all sides and all angles are congruent.



In order to construct:

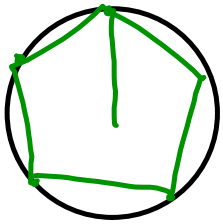
1. Divide the circle (360°) into the number of sides corresponding to the polygon.

Ex pentagon
5 sides

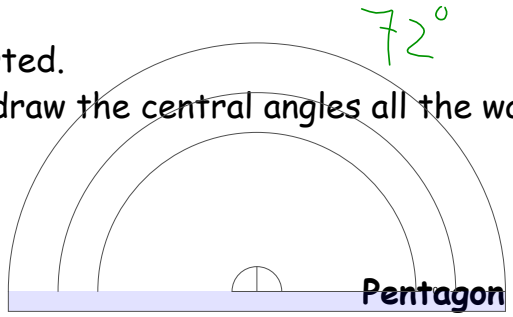
$\frac{360}{5} = 72$

To find the angles of a regular polygon, you need to know the following...

1- draw circle

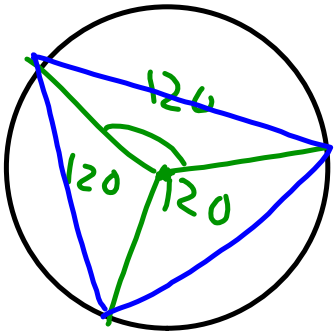


2. Draw a radius to get started.
3. Take your protractor to draw the central angles all the way around.
4. Draw your chords.

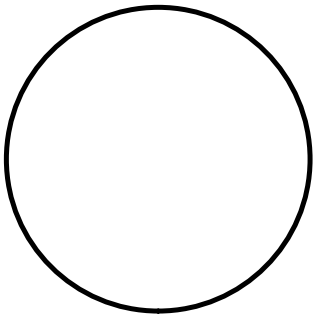


$\frac{360}{3} = 120$

Triangle

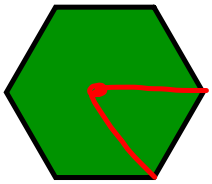


Pentagon

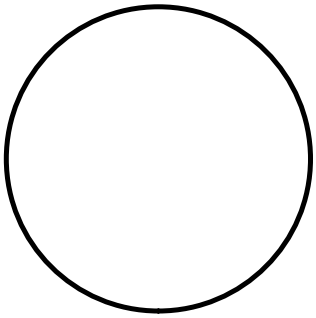


L. 40: Constructing Polygons

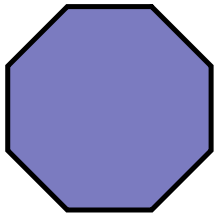
a) hexagon



$\frac{360}{6} = 60°$

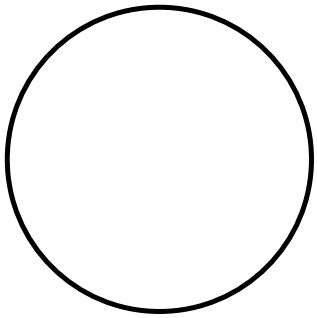


b) octagon

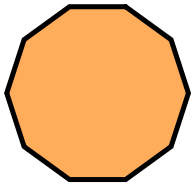


$\frac{360}{8}$

$45°$

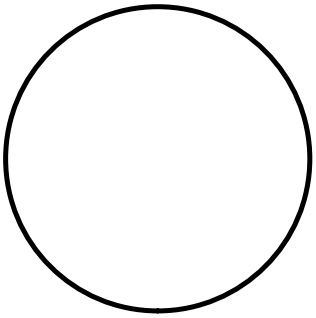


c) decagon

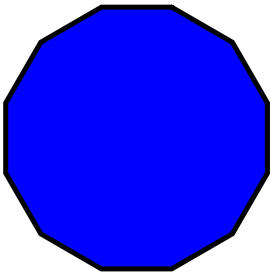


$\frac{360}{10}$

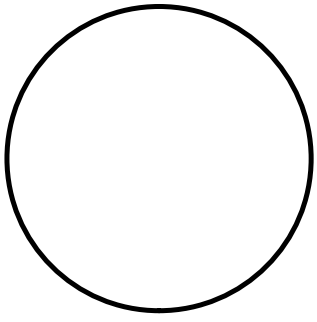
$36°$



d) dodecagon



$\frac{360}{12}$ $30°$



Attachments

architecture.asf