## 2D with GSU ~ Regular Polygons



## DRAWING REGULAR POLYGONS AND CIRCLES

Start: Select TOP VIEW to change the view to 2D: Select the Camera Menu > Standard View > Top View.

* Drawing a square

1. Select Rectangle $\square$. Click at the origin and draw a rectangle along the green and red axis.
2. Type $2 \mathrm{~m}, 2 \mathrm{~m}$ ENTER $\curvearrowleft$ designating the dimensions to be 2 meters by 2 meters.

## * Drawing a regular hexagon

1. Select Polygon then type 6 ENTER ${ }^{\downarrow}$ (designating the polygon to have 6 sides).
2. Click at the origin and draw a hexagon along the red and green axis.
3. Type 2 m ENTER $\curvearrowleft$ designating the radius to be 2 m .

## * Drawing other regular polygons

1. Select polygon $\nabla$ then type the number of sides for the polygon you wish to draw then ENTER $\leftarrow$.
2. Click at the origin and draw a regular polygon along the red and green axis.
3. Type 2 m ENTER $\downarrow$ designating the radius to be 2 meters.

## * Draw a circle

1. Select Circle $\square$ Click at the origin and draw a circle along the red and green axis.
2. Type 2 m ENTER $\downarrow$ designating the radius to be 2 meters.

## * Finding dimensions

1. Draw any regular polygon following the above steps.
2. Draw the Radius: Select Line and draw a line from the center of the polygon (the origin) to a vertex.
3. Draw the Apothem: Using the line tool draw a line from the center of the polygon to the midpoint of a side. Notice how GSU finds the location of the midpoint when you hover near it.
4. Finding Dimensions: Select Dimension $\stackrel{\text { BK }}{\Re^{*}}$. Click on one endpoint of the radius, then the second endpoint of the radius. Pause for 1 second and click on the second midpoint again. Find the lengths of the apothem and side as well.

This information will be helpful in finding surface area and volume of prisms and pyramids later on.


