**Pyramid & Cone Construction & Exploration Activity**

**Cone Exploration**

1) Draw a radius on your circle and find its measure.

Radius of the Circle =

2) To make a cone you will need to cut out a sector of the circle. Everyone in your group needs to measure a different central angle and cut out that sector. Throw away what you cut out.

Degrees Cut Out =

3) How many degrees are left in the circle? Who has the highest amount of degrees?

Degrees Remaining =

4) Make a cone using what you have left; tape it together. Who has the tallest cone?

5) Find the radius of the bottom of the cone. Who has the biggest radius?

Radius of the Cone =

6) Draw a picture of your cone with labels below. Draw in the height.

7) Find the height of your cone using mathematics (do not try to measure)

8) Calculate the volume of your cone, who had the biggest volume? Was it the tallest cone? Was it the biggest angle?

9) Divide the height by the radius, does the person with the highest ratio have the biggest volume? Is it the lowest?

**Pyramid Exploration**

1) Start by making a pyramid using the outline. Find the volume of the pyramid? Take all measures needed and draw a picture of the figure below:

2) Use the second prompt to create your own pyramid. This pyramid needs to have a volume of 70.5 cubic centimeters

\*Use the formula for volume of a pyramid to help you

3) Use the workspace below to draw a sketch and perform any mathematics needed to create this figure.

4) Cut out your design and put together your pyramid. Check with your teacher for correctness.