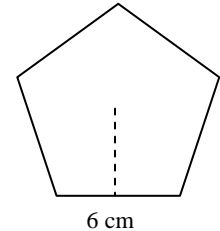Name: _____    Section : _____

For the following project, use light cardboard.  This must be your own original creation.
Construct a right pyramid with a base that is a regular pentagon such that each edge of the pentagon
measures 6 cm. Make your pyramid at least 5 cm high. You will show this to your instructor.

Length of side of pentagon: 6 cm
The dotted line in the sketch is perpendicular to the side of the pentagon
   and goes to the center of the pentagon.
Length of dotted line in sketch: 4.13 cm
Prepare the following to turn in:

6 cm

Work to find the <u>area of the pentagonal base</u>:

<u>Area</u> of the pentagonal base to the nearest 0.1 cm$^2$. _____ Note: Use this rounded number for
subsequent calculations.

Measure the height of the pyramid (by holding a centimeter ruler in a vertical position next to your
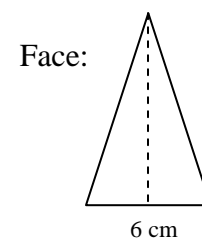upside down pyramid) to the nearest 0.1 centimeter : _____
(Please note that this is NOT the same as the length of the dotted line shown <u>below</u>.  Ask your
instructor if you are unsure of the difference.)

Work to find the <u>volume of the pyramid</u>:

<u>Volume</u> of the pyramid to the nearest 0.1 cm$^3$: _____

Length of altitude of face (suggested by dotted line in sketch) to the nearest 0.1 cm: _____

Face:

Work to find the area of one triangular face:

6 cm

<u>Area</u> of one triangular face to the nearest 0.1 cm$^2$: _____

Use that answer in your work to find the surface area of the pyramid.  Include labels.

<u>Surface area</u> of the pyramid to the nearest 0.1 cm$^2$: _____

2014