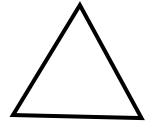Name: _____   Date _____   Period _____

BERNOULLI WAS A "BIRD-BRAIN"

You are working with triangles and the solids that can be constructed from them tetrahedral. Working this sheet as you go will help you find out many interesting principles of geometry. You will need a ruler, and a protractor.

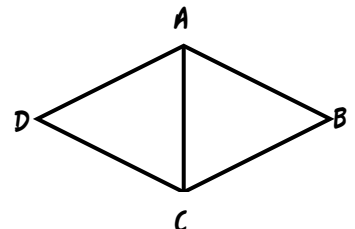1. You have just connected 3 straws to make a triangle.
    Record all the facts you know about it.
    Number of sides? _____   Length of each side = _____
    All sides are _____   Height of the triangle = _____
    This is a(n) _____ triangle.

2. By adding two more straws, you have a _____.
    Record all the facts you know about it.
    Number of sides? _____   Length of each side = _____
    All sides are _____   Height of the rhombus = _____
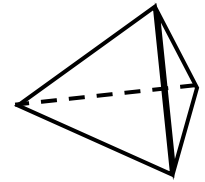 $\overline{AB}$ is _____ to $\overline{CD}$ (direction) $\overline{AD}$ is _____ to $\overline{BC}$ (direction)
    A rhombus is a type of a(n) _____.
    Area of the rhombus= _____

Area = bh

Name: _____ Date _____ Period _____

3. When you added the last straw, you made a tetrahedron.
    This is 3-dimensional figure having length, width, and height.
    It is a _____ tetrahedron called a _____ _____.
    What is the ratio of covered sides to total number of sides? _____
    How many triangular faces does it have? _____ All sides are _____
    Measure the length: _____ Width: _____ Height: _____
    What is the Surface Area of the tetrahedron? _____

4. When the kite is assembled, what shape is _____ _____
    How many triangular faces does it have? _____ All sides are _____
    Measure the length: _____ Width: _____ Height: _____
    What is the Surface Area of the tetrahedron? _____
    What is the ratio between covered and uncovered triangles in the whole kite?

    _____

    The entire kite is "similar" to one cell.
    What is the same? _____

    _____
    What is different _____

    _____