Modeling Geomtery Quiz 5A Review

1. List the following area and volume formulas
    a. Area
        i. Triangle-
        ii. Square-
        iii. Rectangle-
        iv. Trapeziod-
        v. Kite-
        vi. Equilateral Traingle-
        vii. Circle-
    b. Volume
        i. Pyramid-
        ii. Prism-
        iii. Cylinder-
        iv. Sphere-
        v. Cone

2. Draw and label an Oblique Cone and Cylinder. Find the volume of your shape.

3. What does the Cross Section look like of any object cut parallel to the base? What about perpendicular to the base?

4. Find the volume of a rectangular prism with a height of (a − 2), length of (a +7), and a wdth of (a +1).
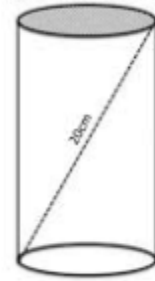
5. Find the volume of the cylinder with a radius of 5.

6. A triangular pyramid fits snuggly in a cube with side length of 5. Find the volume of empty space in the box. Draw a picture.

7. A rectangle with side length of 5 and width of 2.5 is rotated to create a cylinder. What is the volume of cylinder made?

8. A circular table with radius of 10 in has 67 crumbs on it. What is the population density of the crumbs on the table?

9. You have a concrete cube with mass of 70 kg. The density of concrete is 2400 kg/ cubic meter. What is the volume of the cube?

10. A piece of cardboard measures 48 inches on each side. Congruent squares on all 4 corners will be cut out to fold into a box. Find the approximate **box** (to the nearest inch) in which the volume is maximized.