**Math Assignment**

Directions: If you are using Microsoft® Word 2007 and plan to insert equations into this document using Equation Editor, go to the **Insert** tab, click **Object**, and select **Equation Editor 3.0**. Equation Editor allows you to easily insert equations into this document.

1. A cylindrical hockey puck is 1 in. high and 3 in. in diameter.  What is the volume in cubic inches?  Round your answer to the nearest tenth.
2. A log cabin is shaped like a rectangular prism. A model of the cabin has a scale of 1 centimeter to 0.5 meters.
3. If the model is 14 cm by 20 cm by 7 cm, what are the dimensions of the actual log cabin? Explain how you find the dimensions.
4. What is the volume of the actual log cabin? Explain how you find the volume.
5. What is the ratio of the volume of the model of the cabin to the volume of the actual cabin? Explain your method for finding the ratio.
6. Tyler built a doll house for his sister as shown in the diagram below.Find the volume of the doll house. Explain your method for finding the volume.

7. Box A is a cube with length of 5 inches, width of 5 inches and height of 5 inches.

Box B has length of 3 inches, width of 3 inches and height of 11 inches.

Box C has length of 7 inches, width of 3 inches and height of 5.4 inches.

*(Note: Figures are not drawn to scale)*

The 3 boxes have different dimensions but the same surface area.  Calculate the volume for each of the boxes.  Which has the greatest volume?  Which has the smallest volume?

