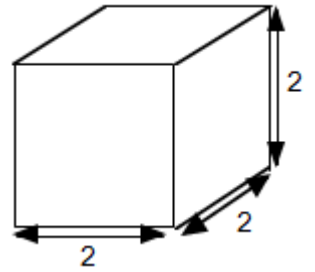


Name: _____

Building Blocks

Barbara's baby brother, Billy, has a set of building blocks. Each block is 2 inches long, 2 inches wide, and 2 inches high.



1. How many faces does each block have? _____

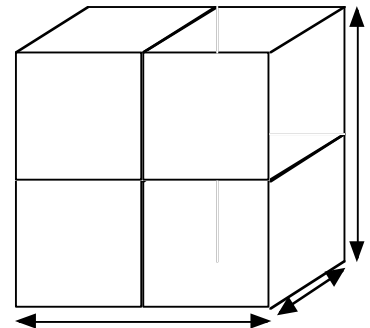
2. What is the volume of this block? _____
Show how you figured this out.

3. Billy has built this shape from his 2 x 2 x 2 blocks.

a. What is the surface area of the shape?

_____ square inches

Show how you figured this out.



b. What is the volume of the shape?

_____ cubic inches

Explain how you figured this out.

4. Barbara wants to build a rectangular prism with the blocks using at least 12 blocks that has a greater volume than surface area. Describe the dimensions (in inches) of the rectangular prism and show how it meets the criteria.

Building Blocks	Rubric	
<p>The core elements of performance required by this task are:</p> <ul style="list-style-type: none"> work with area and volume <p>Based on these, credit for specific aspects of performance should be assigned as follows</p>	points	section points
1. Gives correct answer: 6	1	1
<p>2. Gives correct answer: 8 cubic inches</p> <p>Shows work such as:</p> <p>$2 \times 2 \times 2 =$ or length x breadth x height</p>	1 1	2
<p>3. a. Gives correct answer: 64 square inches</p> <p>Shows work such as:</p> <p>$2((4 \times 4) + (4 \times 2) + (4 \times 2))$</p> <p>b. Gives correct answer: 32 cubic inches</p> <p>Gives explanation such as:</p> <p>There are 4 cubes and each is 8 cubic inches. So 4 times 8 makes 32</p> <p>or $4 \times 4 \times 2 =$</p>	1 1 1 1	4
<p>4. Gives a correct answer such as:</p> <p>$8\text{in} \times 8\text{in} \times 8\text{in}$</p> <p>Gives a correct explanation such as:</p> <p>Surface area: 6 sides of $8 \times 8 = 6 \times 8 \times 8 = 384$ inches</p> <p>Volume: $8 \times 8 \times 8 = 512$ inches</p>	2 2	4
Total Points		11