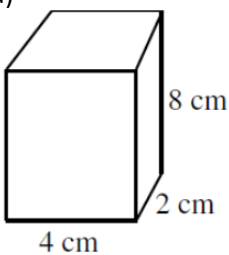
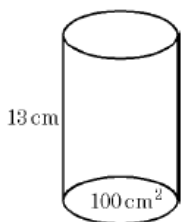
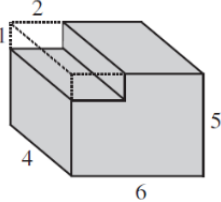
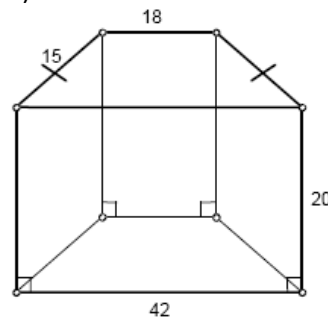
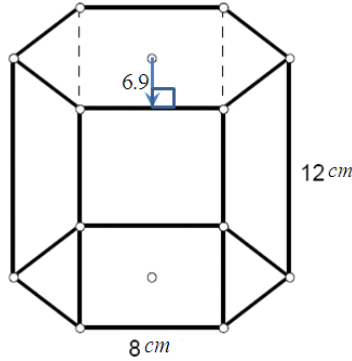
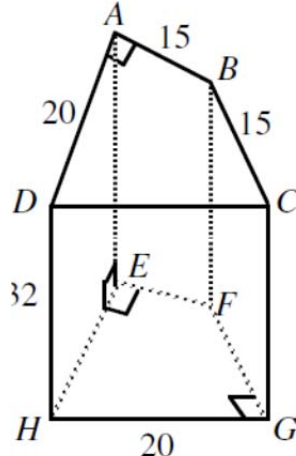


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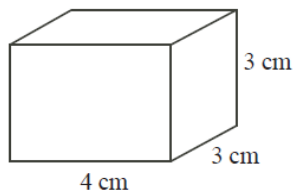
Date: _____

HW Math 8 Section 9.1 Volume of Prisms

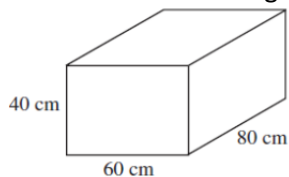
1. Find the volume of the following prisms:

| | |
|---|---|
| <p>a)</p>  <p>4 cm, 2 cm, 8 cm</p> | <p>b)</p>  <p>13 cm, 100 cm²</p> |
| <p>c)</p>  <p>2, 1, 4, 5, 6, 4</p> | <p>d)</p>  <p>18, 15, 20, 42</p> |
| <p>e)</p>  <p>6.9, 12 cm, 8 cm</p> | <p>f)</p>  <p>A, B, C, D, E, F, G, H, 15, 20, 15, 20, 32, 20</p> |

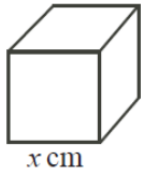
2. How many 1cm by 1cm by 1cm cubes are needed to fill up the following rectangular prism?



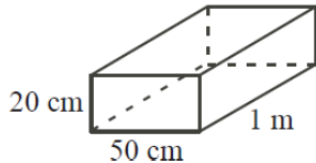
3. What is the maximum number of rectangular wooden blocks with dimensions 20 cm × 30 cm × 40 cm that could fit into a rectangular box with inner dimensions 40 cm × 60 cm × 80 cm?



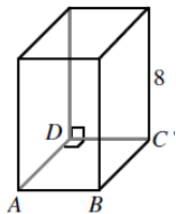
4. In the diagram, the cube has a volume of 343 cm^3 . What is the value of x ?



5. In the diagram, the rectangular solid has side lengths 1 m , 20 cm and 50 cm . What is the volume of the solid, in cm^3 ?



6. A rectangular building block has a square base $ABCD$ as shown. Its height is 8 units. If the block has a volume of 288 cubic units, what is the side length of the base?



7. Challenge: A rectangular chocolate cake has dimensions 20 cm by 32 cm by 3 cm . It is to be shared equally among 30 students in a class. What quantity of chocolate will each person receive? If a chef were to cut the cake into cubes of equal sizes for everyone, then what would the dimensions be?

8. Challenge: A rectangular wooden prism is made up of three pieces, each consisting of four cubes of wood glued together. Which of the pieces below has the same shape as the black piece?

