Unit 5 Study Guide: Area and Volume

Name: Period:

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| **MCC6.G.1:** Find the area polygons; apply these techniques in the context of solving real-world problems.-Triangle Area:½bh-Trapezoid Area:½h(b1 + b2) -Parallelogram Area:bh-The height of a polygon ALWAYS goes from the highest point to the base.-If a polygon has a fractional dimension, we must convert to improper fractions before we can multiply to calculate area | 1. Polygon Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area Formula:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2.Polygon Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area Formula:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_3.Polygon Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area Formula:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_4.  Polygon Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area Formula:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. Find the area of this figure:6. Find the area of this figure by decomposing into polygons:http://7d8.edublogs.org/files/2012/10/Composites-shape-2-mpbc1d.jpeg7. Ms. Marmiol is getting new hardwood floors in her living room. How many square feet of wood will she need to order if her living room is has this floor plan:https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcRl6hImcB7bbEtj9hWak3FeQDTkFfHiA6ExSddK-CZK9clRTMvX |
| **MCC6.G.3:** Apply the formulas V = l w h and V = Bh to find volumes of right rectangular prisms. Apply this to solve real-world problems.Volume of a rectangular prism= Bh, where B= area of the baseVolume = lwh | Find the volume of each:8. 9.10.11. How much yogurt can I fit into my to-go box if it is this big?12. What is the volume of this solid if each cubic unit is ½ inch? |
| **MCC6.G.4:** Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. | Find the surface area of each figure#13-15:13. 14. 15.  |

16. What is the difference between surface area and volume?

17. Explain, in detail, how to calculate how much carpet will be needed to cover this floor:

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Mr. Thomas is wrapping a present to give Ms. Krishna. The box is pictured below along with its net:



18. How much wrapping paper will Mr. Thomas need to cover the box?

19. How many cubic centimeters of present will the box hold?