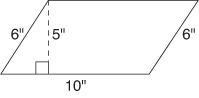
Unit 5 Study Guide: Area and Volume

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.jpeg  7. 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 base  Volume = 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:

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&ved=0CAcQjRw&url=http://www.cliffsnotes.com/math/basic-math/basic-math-and-pre-algebra/measurements/calculating-measurements-of-basic-figures&ei=9eHsVOfGIerIsASRhYDwBQ&psig=AFQjCNFxkaPOMstvkcmGb_Mqag9XDCmo5Q&ust=1424896876568972)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

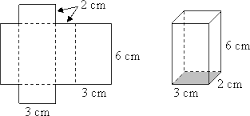
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Mr. Thomas is wrapping a present to give Ms. Krishna. The box is pictured below along with its net:



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

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