

Activity One

HOMEWORK

Geometry of Solids

Name: _____ Date: _____

Vocabulary:

faces

edges

vertices

prism

bases (top and bottom)

lateral faces

lateral edges

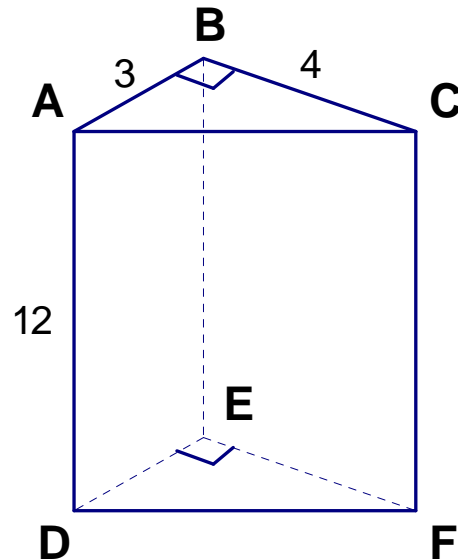
cube

Exercises

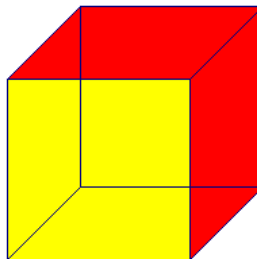
1. Name the bases of the prism: $\triangle ABC$ and
2. Name the lateral faces of the prism.

3. What shape are the lateral faces of the prism?
4. Name the lateral edges of the prism.

5. What is the height of the prism?
6. What is the perimeter of the base?
7. What is the total area of all of the faces?
8. How many vertices does the figure have?
9. How many edges does the figure have?
10. How many faces does the figure have?



Assume the cube below has edge length 4.



11. How many faces does a cube have?

Activity One

12. What is the shape of each face on a cube?
13. What is the area of one of the faces of the cube you drew above?
14. How many edges does a cube have?
15. How many vertices does a cube have?
16. If the cube above was a Rubik's Cube, it would have how many:
 - a. Center pieces?
 - b. Corner pieces?
 - c. Edge pieces?

The BASE AREA of a prism is defined as the combined area of both bases. *Commonly, it is referred to as Top & Bottom. For the Rubik's Cube, we call them Up and Down faces.*

17. What is the base area of the cube above?

The LATERAL AREA of a prism is defined as the combined area of all the lateral faces. *Commonly, it is referred to as Front, Back, Right and Left. It is the same for the Rubik's Cube.*

18. What is the base area of the cube above?
19. What is the total surface area of the cube above?
20. If the cube above was made up of smaller unit cubes, how many would it have?

Review the Cube:

21. How many edge pieces does it have?
22. How many corner pieces does it have?
23. How many center pieces does it have?
24. Add all the numbers of pieces from parts a, b, c. Write the sum here:
25. What is the volume of a 3x3x3 cube?



Can you remember the sequence we learned today that flips the edge piece around? Explain: