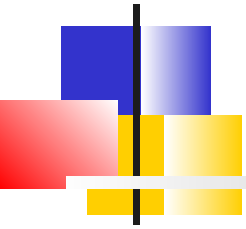


Cube-n-ometry

- Mathematics and Science Center

What would you take a picture of if you were a/an

- Cartographer (map maker)?

Aerial View of Richmond

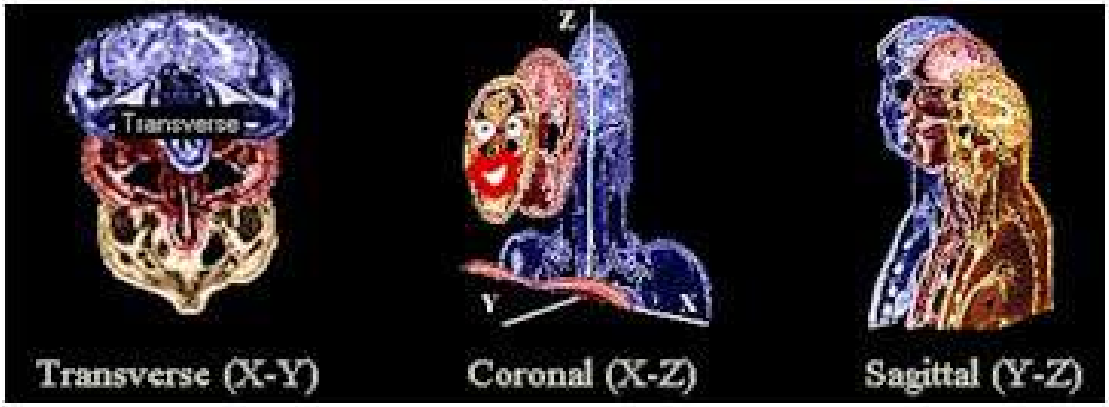
What would you take a picture of if you were a/an

- Architect?

View of Medical College of Virginia

What would you take a picture of if you were a/an

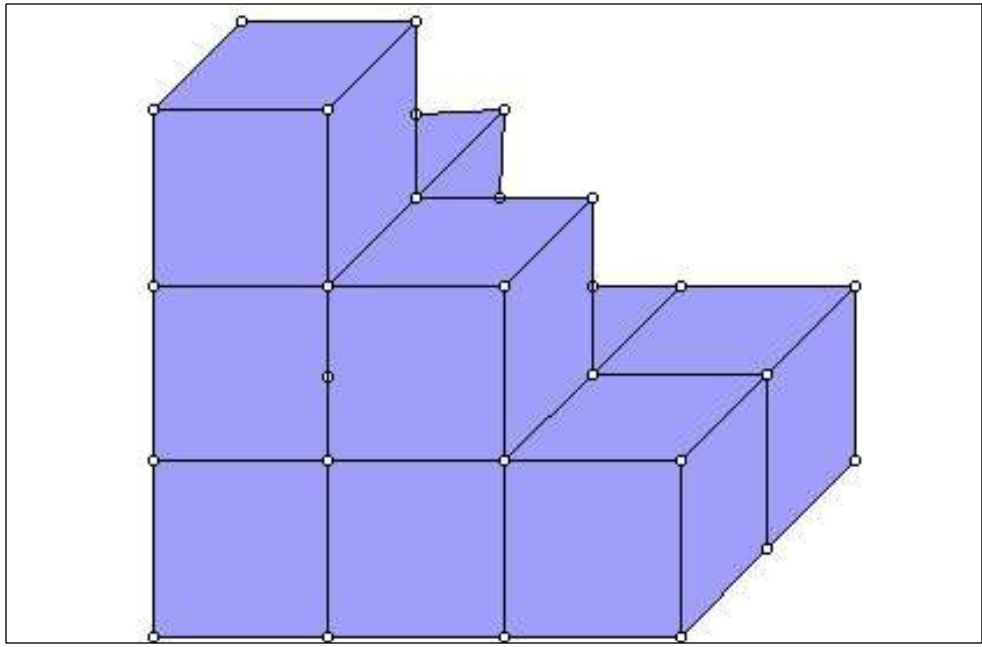
- Scientist or Doctor?



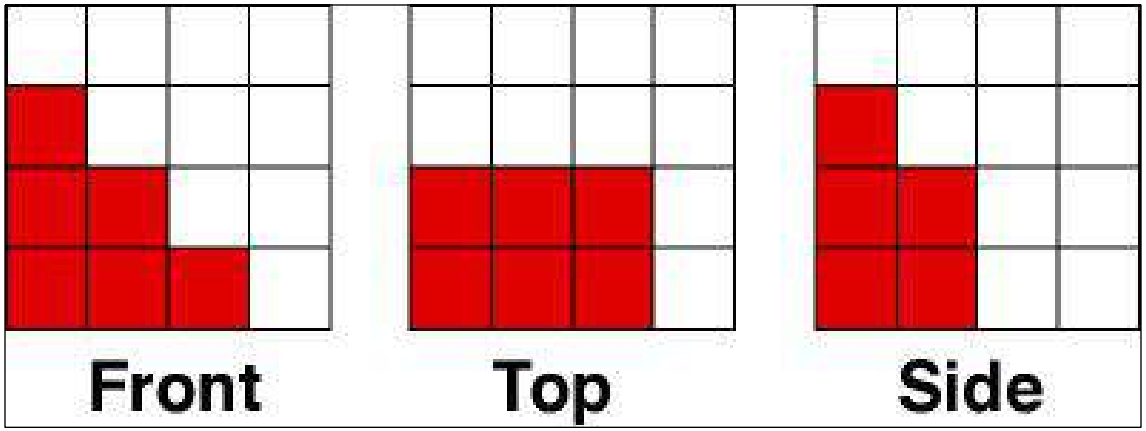
- Sectional views of the human body used in science.

Cube-n-ometry

- If you were to snap a picture of this object what do you think it would look like from the
- Front?
- Top ?
- Side?

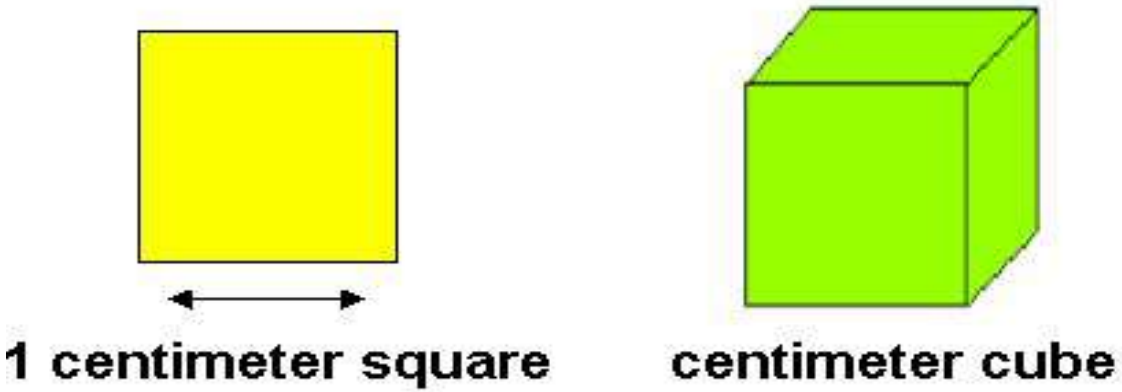


Cube-n-ometry



Cube-n-ometry

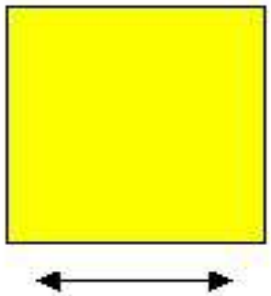
- Let's go back and study what makes a cube from the beginning



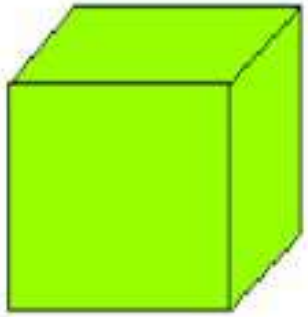
Cube-n-ometry

- What differences can you see in the two figures?

Two - dimensional



1 centimeter square



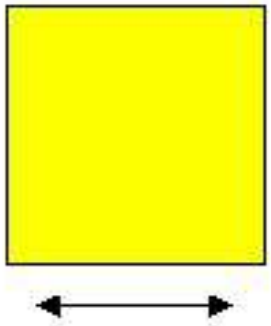
centimeter cube

Three-dimensional

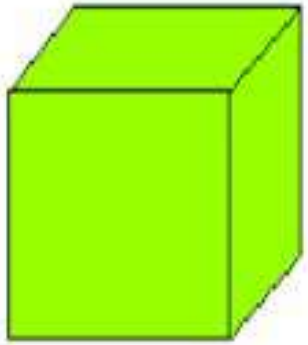
Cube-n-ometry

- What differences can you see in the two figures?

Two - dimensional



1 centimeter square



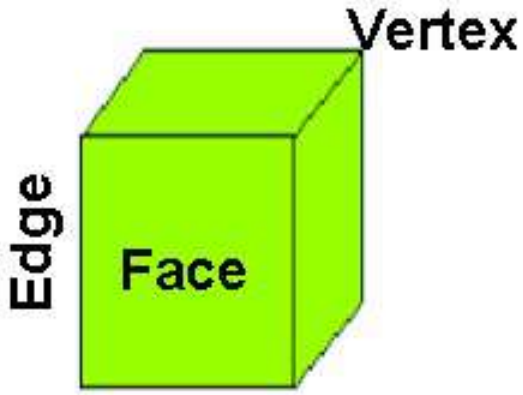
centimeter cube

Three-dimensional

The major difference between two-dimensional and three-dimensional objects, is that three-dimensional objects have depth/width.

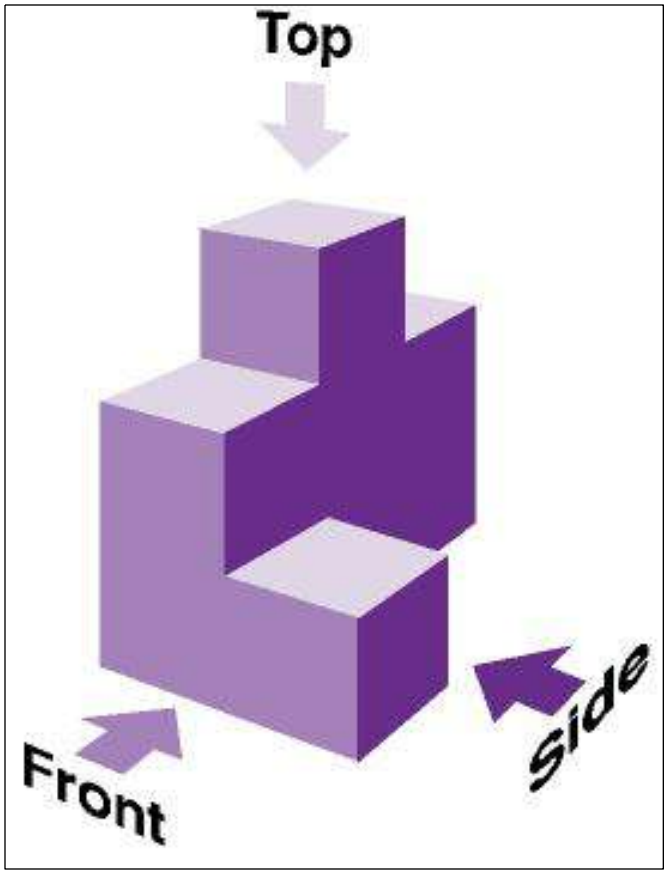
Cube-n-ometry

- Parts of a cube



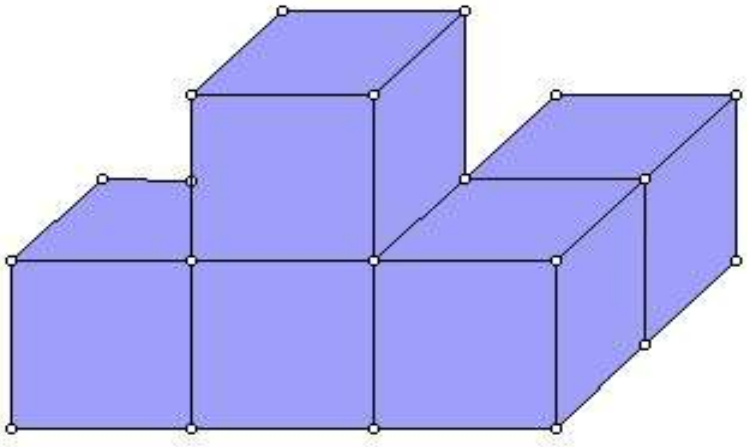
Cube-n-ometry

- Views of a three dimensional block figure can be broken down into three views:



Cube-n-ometry

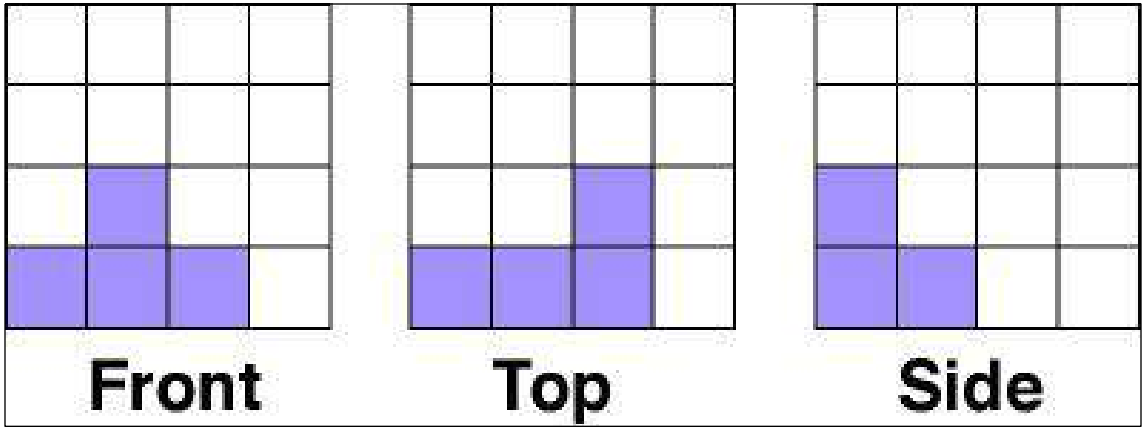
Build this three dimensional block figure.



What does it look like from the front, top, and side views?

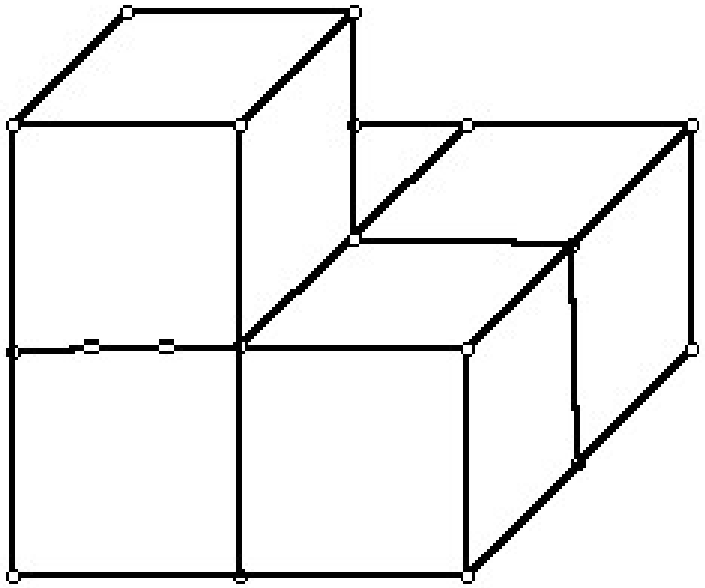
Cube-n-ometry

- Front, top, and side views



Cube-n-ometry

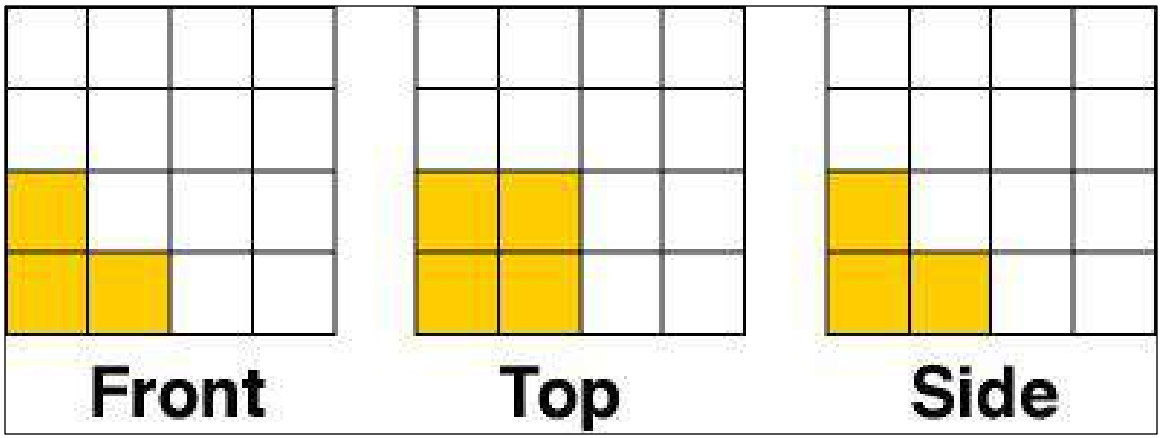
Model A



Build this block figure and describe the front, top, and side views using your grid paper.

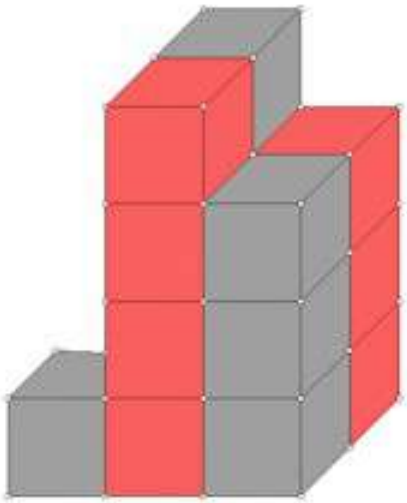
Cube-n-ometry

Model A front, top, and side views



Cube-n-ometry

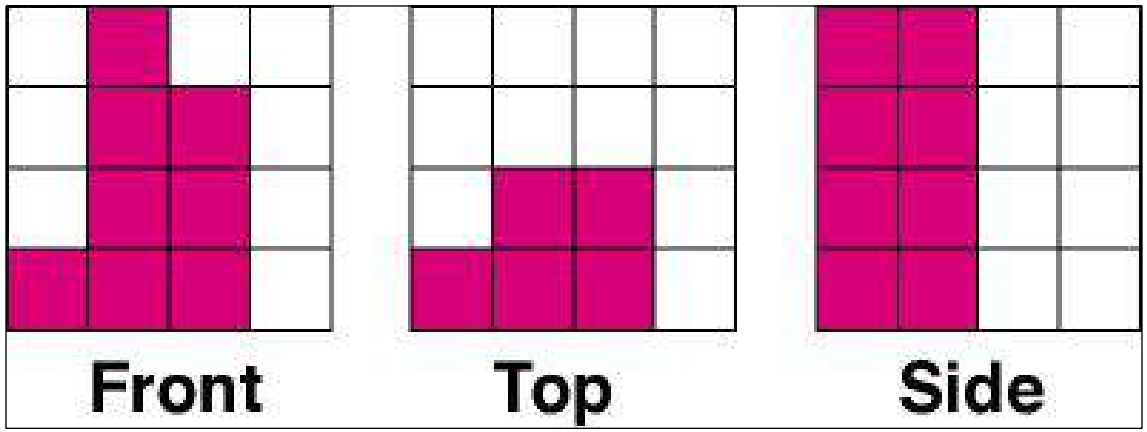
- Model B



Build this block figure and describe the front, top, and side views using your grid paper.

Cube-n-ometry

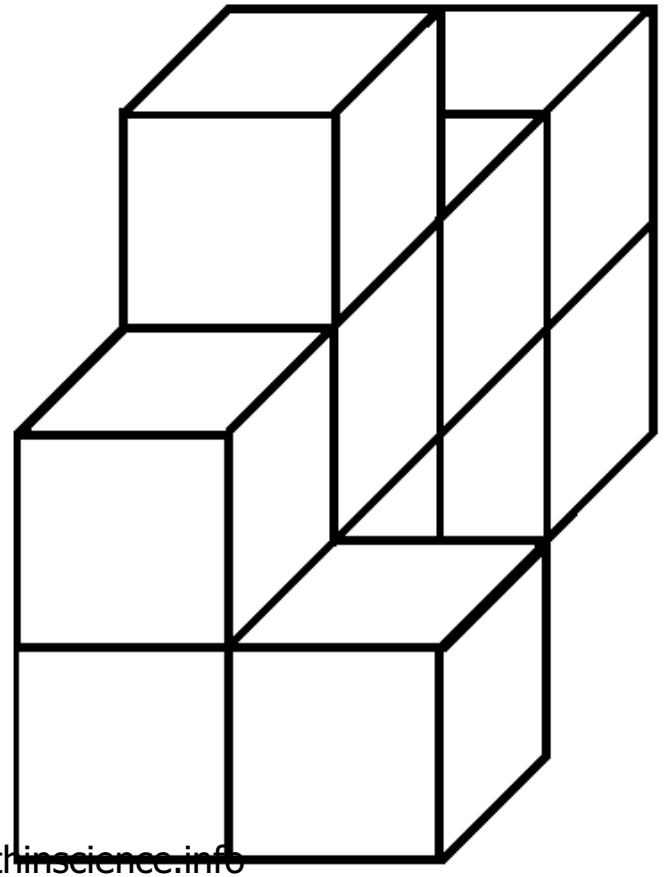
- Model B front, top, and side views



Cube-n-ometry

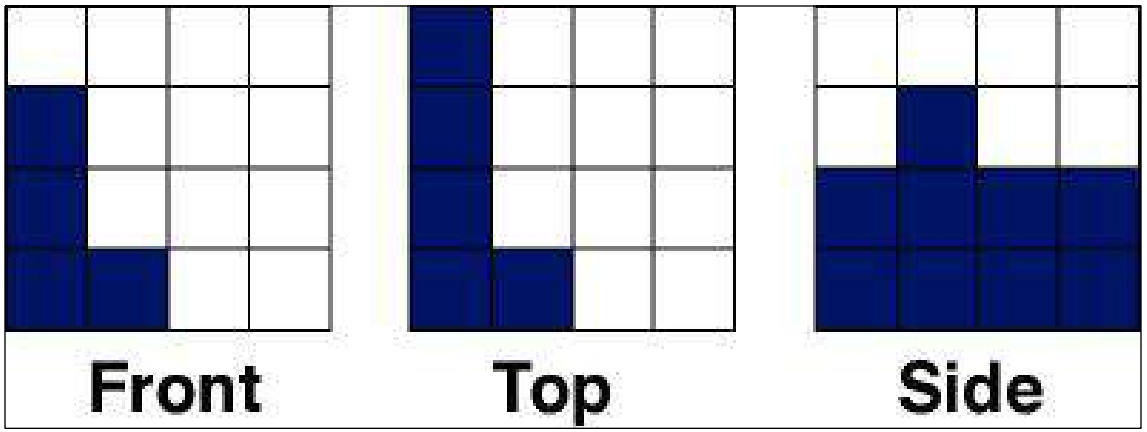
- Model C

Build this figure and describe the front, top, and side views.



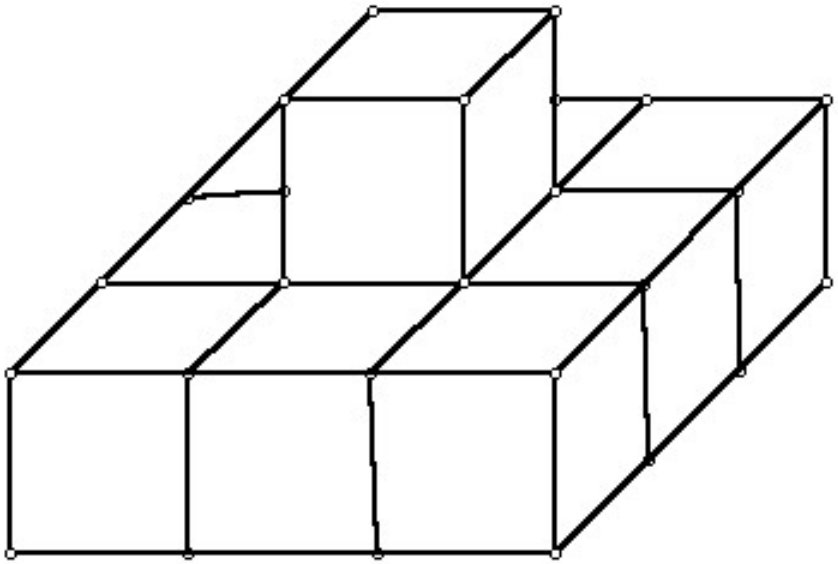
Cube-n-ometry

- Model C front, top, and side views

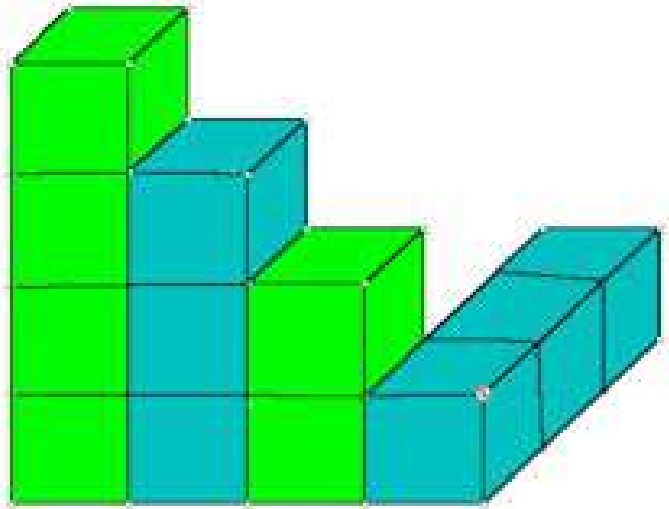


Cube-n-ometry

- Model D

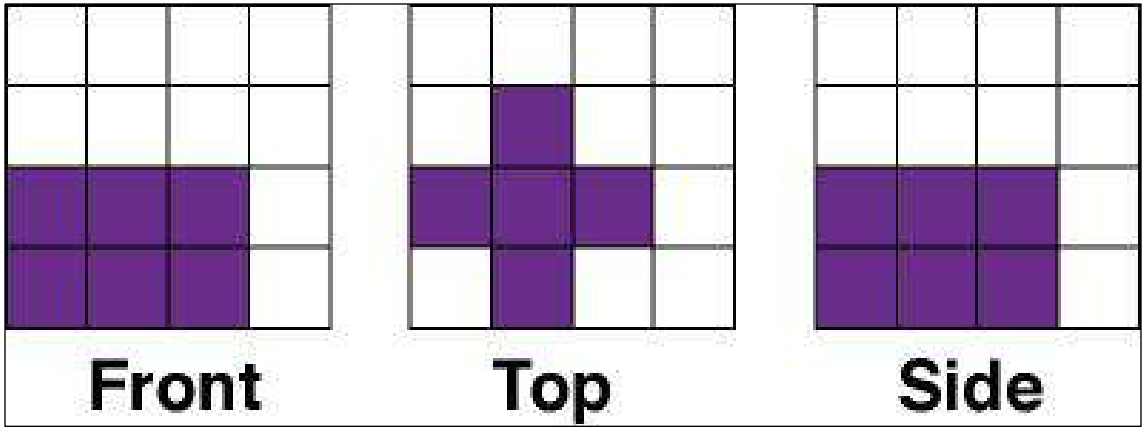


- Model E

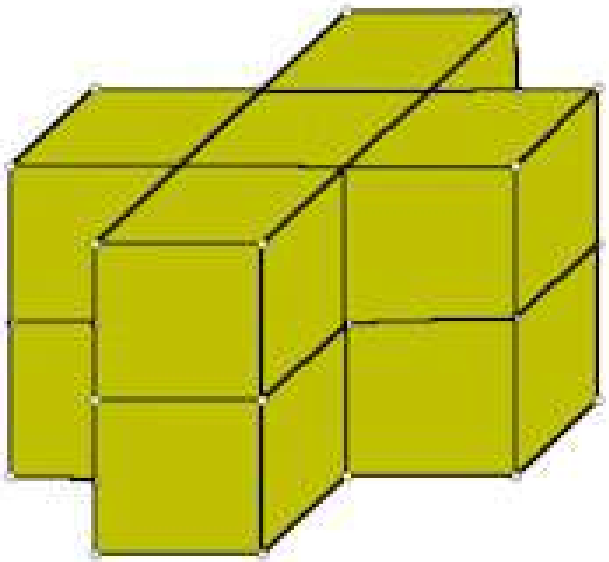


Cube-n-ometry

- Let's do the opposite! Given the views blow, can you build the three-dimensional block figure?

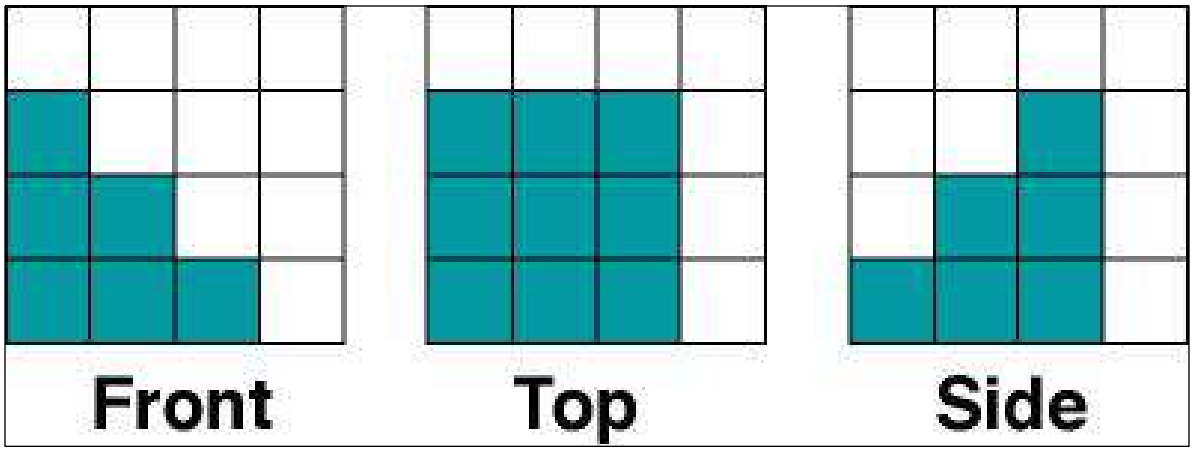


Cube-n-ometry



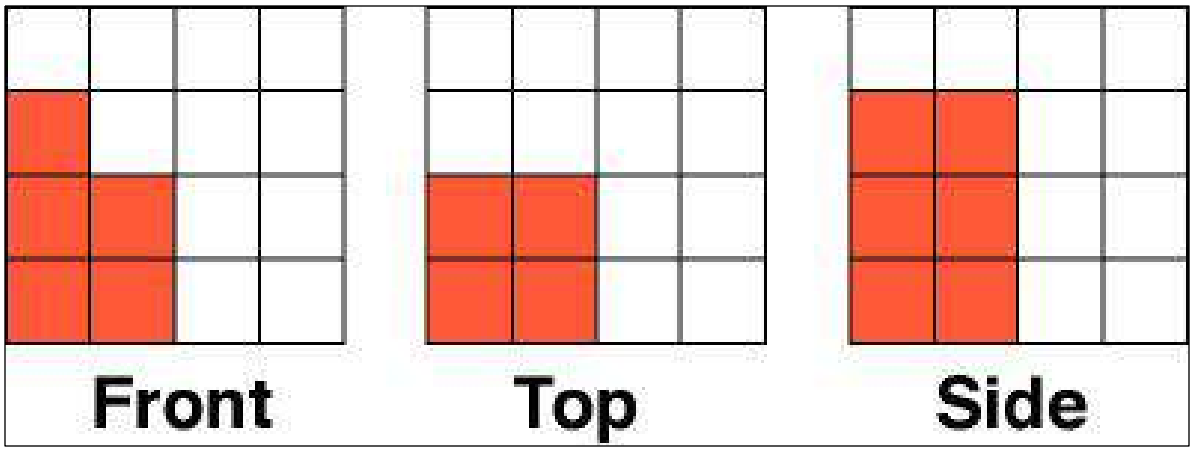
Cube-n-ometry

Views for Model 1



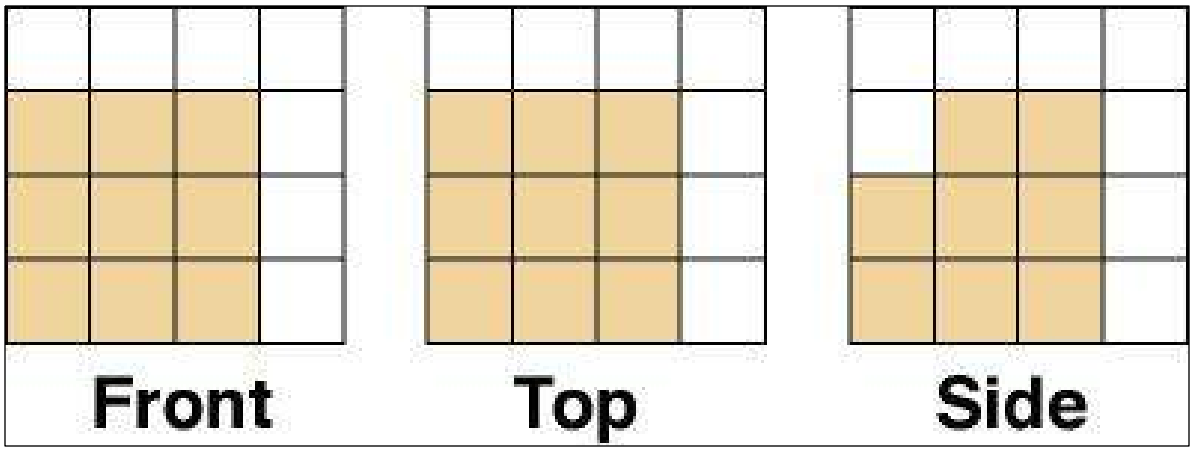
Cube-n-ometry

Views for Model 2



Cube-n-ometry

Views for Model 3



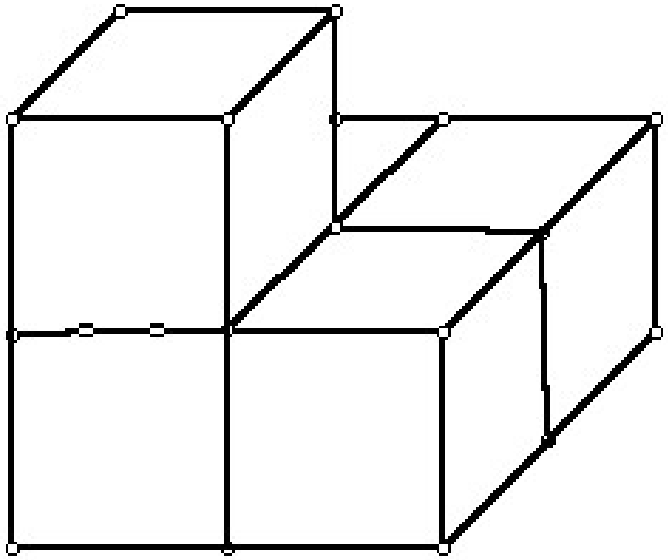
Cube-n-ometry

- **Surface Area**
- Surface Area – what we see; think of how much wrapping paper is needed to wrap a present
- To find the surface area we need to count the number of faces that can be seen

- **Volume**
- Volume – how much space does an object take up
- To find the volume of an object we need to know the number of cubes needed to build the object and the volume of 1 cube

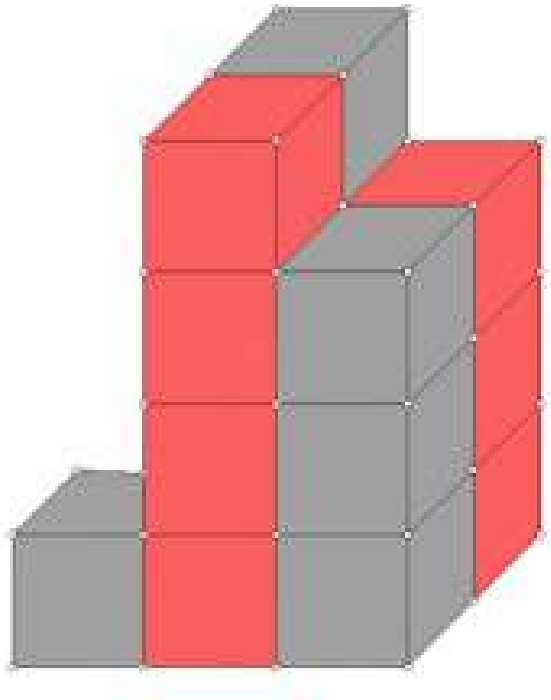
Cube-n-ometry

- Find the volume and surface area for Models A, B, and C made in the beginning. (Remember to use both your views and the figure to solve.)

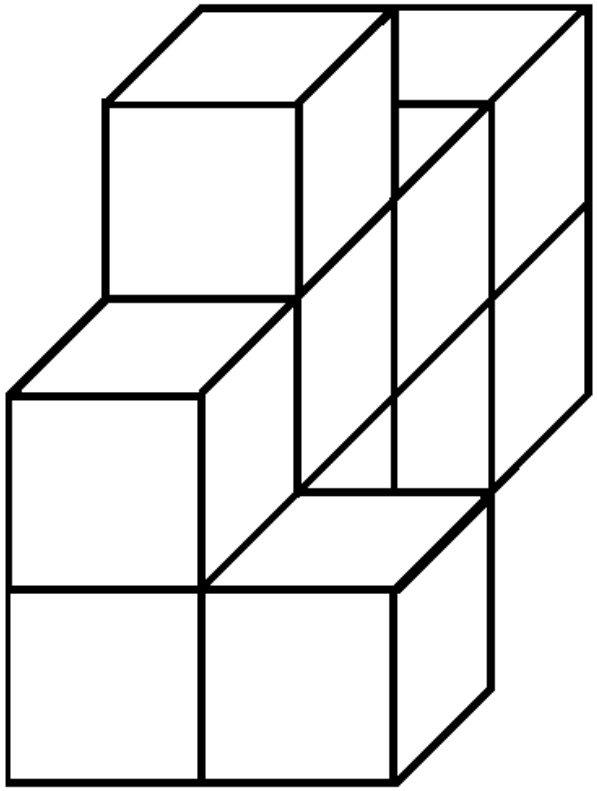


Model A

Cube-n-ometry



Model B



Model C

Cube-n-ometry Review

- Build your own three-dimensional block figure using your blocks.
- Fill in your grids for the front, top, and side views of you figure.
- Switch with a student sitting next to you and try to build each others figure.
- Check to see if their answer is correct, but remember there can be more than one right answer.