

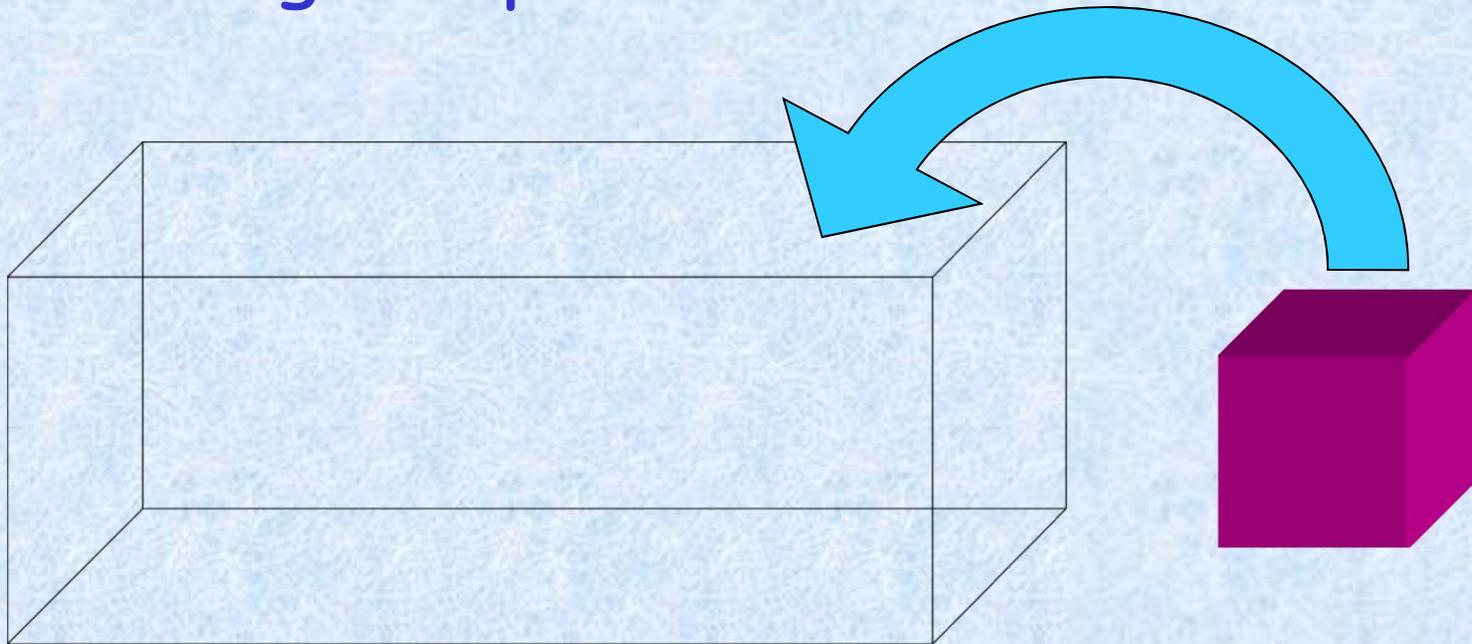
VOLUME

5.MD.3

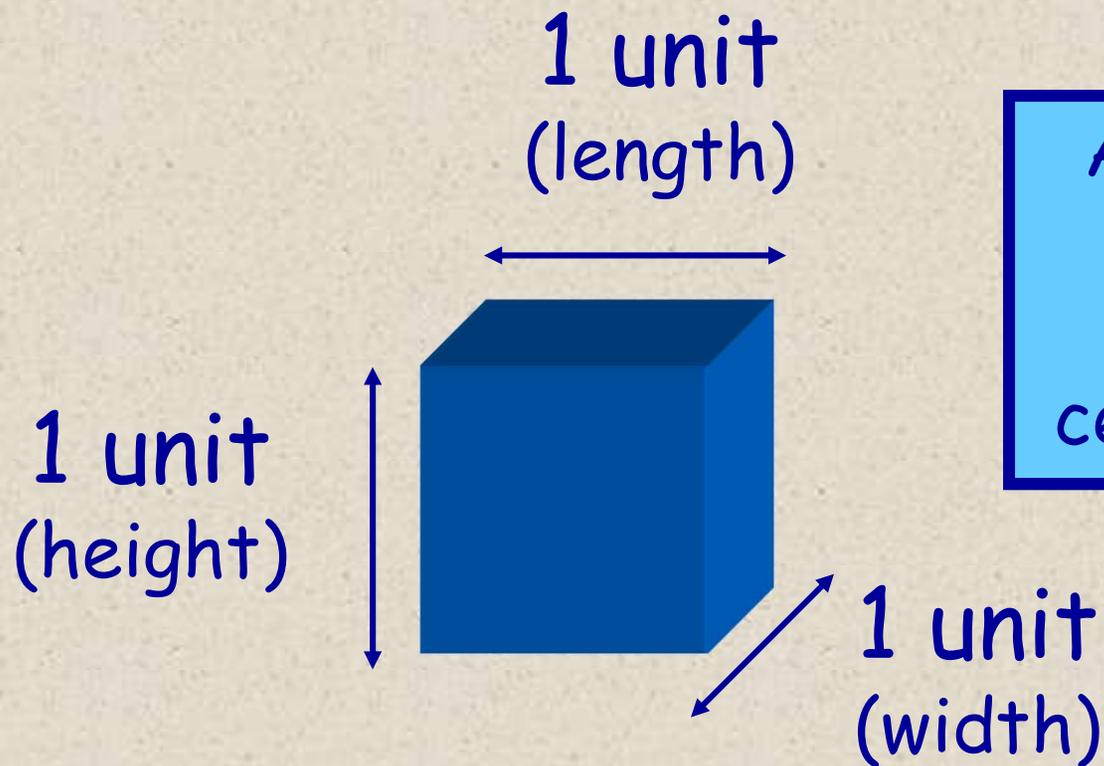
5.MD.4

Cubic Units

- ▣ Volume is measured in **cubic units**.
- ▣ You could use cubes to fill a rectangular prism such as a box.



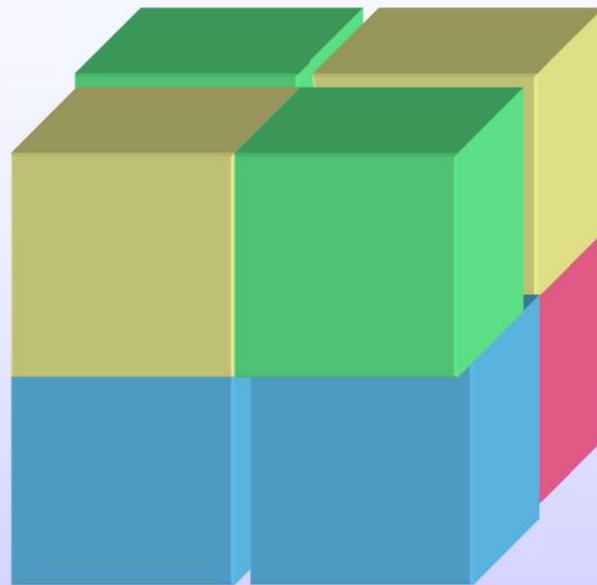
One Cubic Unit



A unit might be measured in inches, feet, centimeters, etc.

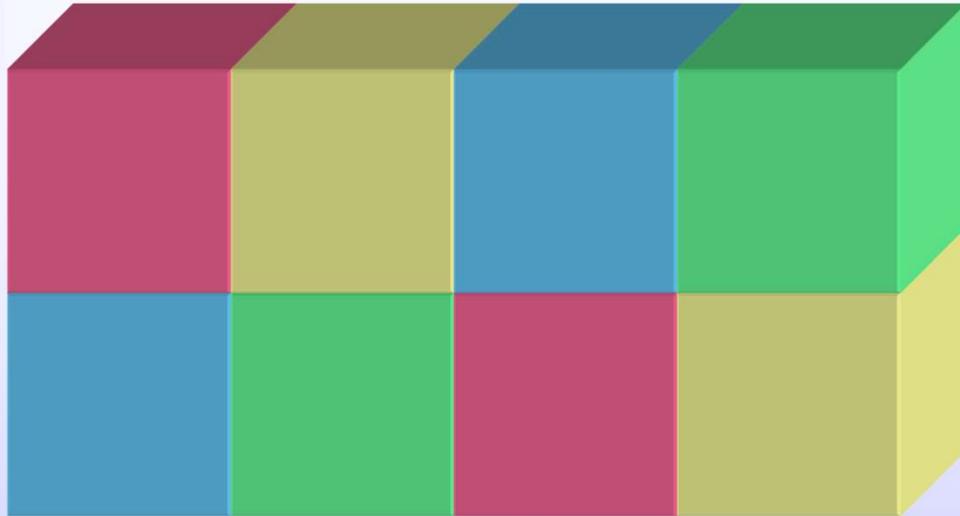
How many cubic units
are in this cube?

Build
this
cube.



Yes, it
is 8
cubic
units!

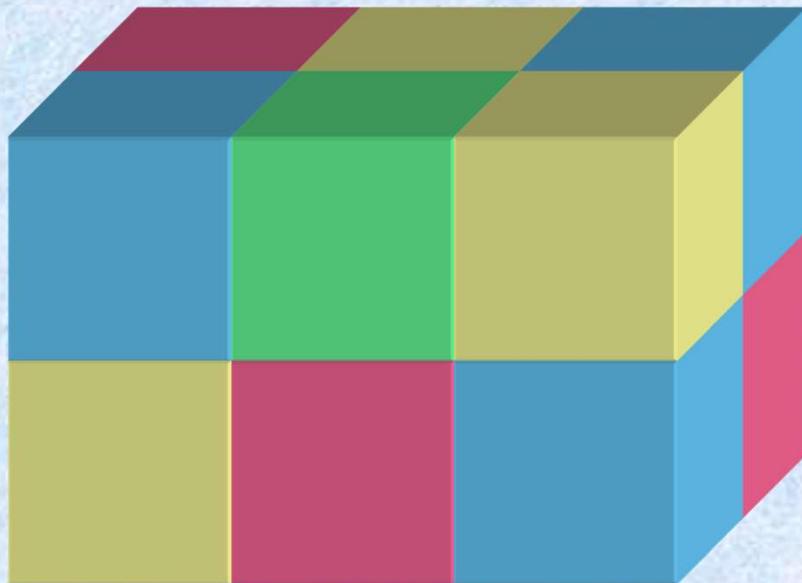
How many cubic units are
in this rectangular prism?



Yes, it is 8
cubic units!

Replicate this rectangular prism.

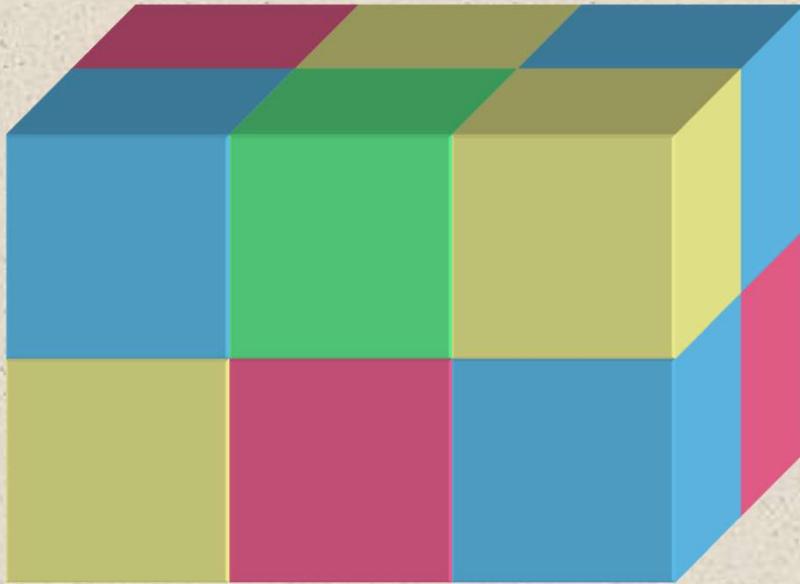
How about this one?



Remember...
there are some
cubes you can't
see!

Watch...

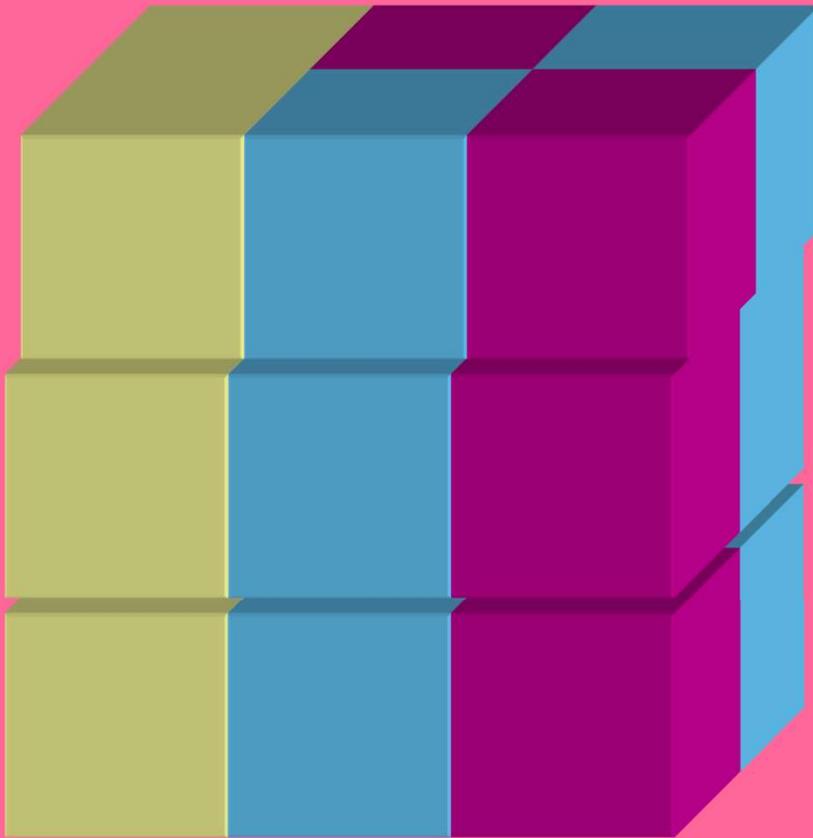
How many cubic units are in this rectangular prism?



Yes! There are 12 cubic units!

Replicate this rectangular prism.

Let's try it!



Number of cubes in each layer

$$3 \times 6 = 18 \text{ cubic units}$$

Number of layers

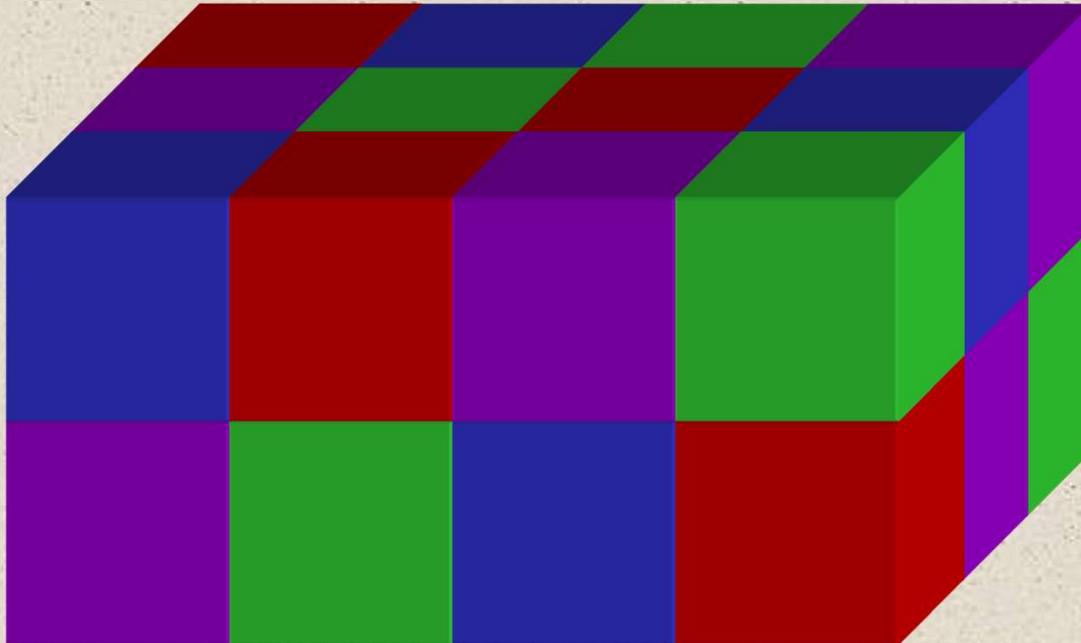
There are 3 layers of 6 cubic units

The bottom layer has 2 rows of 3 cubic units.

$$2 \times 3 = 6 \text{ cubic units}$$

Replicate this rectangular prism.

Find the volume of this one!



What
did you
find?

24 cubic
units

Replicate this rectangular prism.

Partners use your cubes to build a rectangular prism or a cube with a volume of 15 cubic units.

Could there be more than one way to make a rectangular prism?

Partners raise your hands when you have finished building a rectangular prism or cube with 15 cubes.

One partner build a rectangular prism or cube. Have your partner tell you the volume.

Then the other partner gets to build a rectangular prism or cube. Have your partner tell you the volume.

You may keep doing this until time is called.

Discuss with your partner the strategies you used to find the volume of rectangular prisms and cubes.

Be ready to share your strategies with the class.