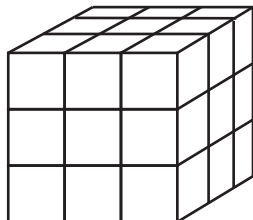1. Amy wants to build a cube with 3 cm sides using 1 cm cubes.

    a. How many cubes does she need?
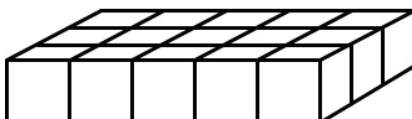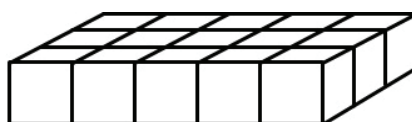
    b. How many 1 cm cubes would she need to build a cube with 6 cm sides?

- -
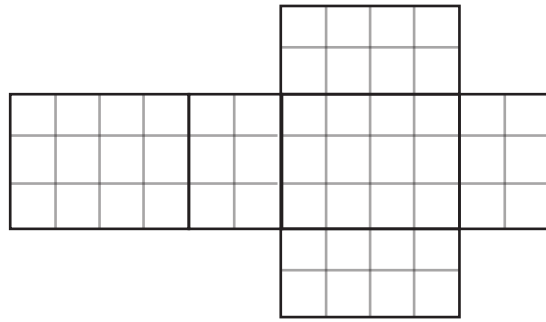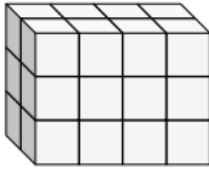
The **volume** of a three-dimensional figure is the number of cubic units it encloses.

2. Find the volume of a rectangular prism with edge lengths 2, 3, and 5.

Two representations of the same polyhedron are shown below.

Select **all** the true statements.

a. The polyhedron is a rectangular prism.
b. The polyhedron is a rectangular pyramid.
c. The polyhedron has six faces.
d. The polyhderon has 12 edges.

e. The surface area is 24 cubic units.
f. The volume is 24 cubic units.
g. The surface area is 26 square units.
h. The surface area is 52 square units.
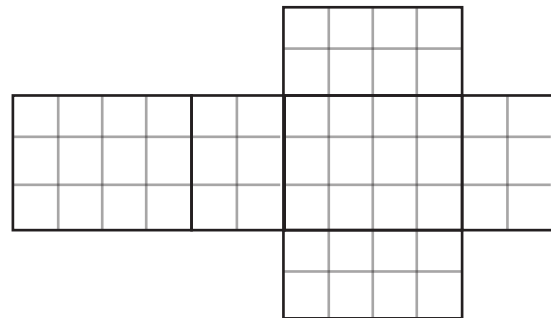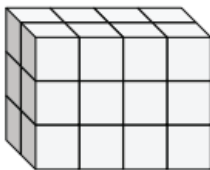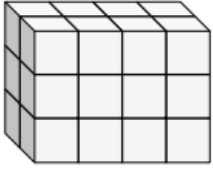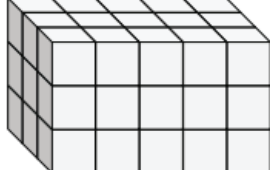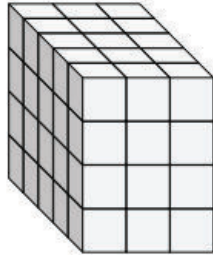
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f. The volume is 24 cubic units.
g. The surface area is 26 square units.
h. The surface area is 52 square units.

Here are some more rectangular prsims. Find the length, width, and height of each. Then find the volume in cubic units.

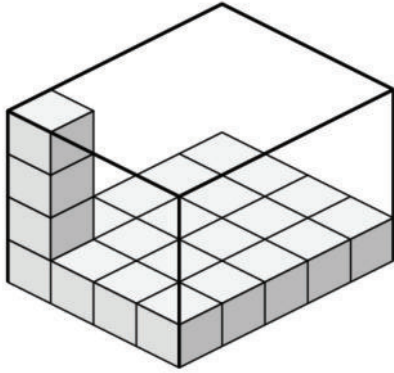|	length	width	height	volume

To find the **volume** of any rectangular prism, you can _____

_____ .

Select **all** of the following units that could describe the volume of a polyhedron. Explain why the other choices cannot be used for volume.
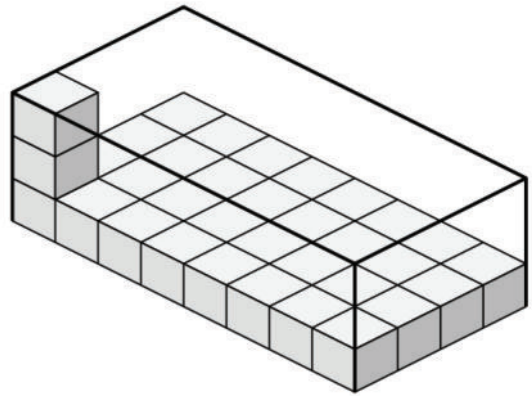
   a. feet
   b. cubic feet
   c. miles
   d. square miles
   e. cm ^{3}
   f. cubic yards

3. Find the volume of each rectangular prism.
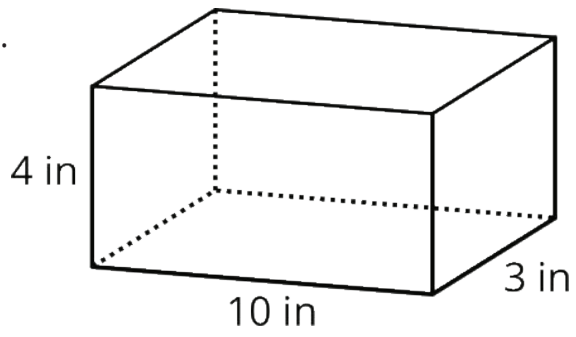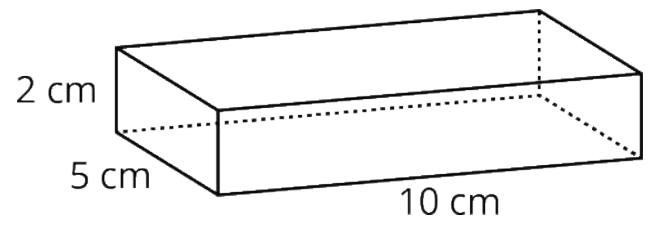
a.

b.

c.

4 in
10 in
3 in

d.

2 cm
5 cm
10 cm

Amy has a fish tank that is 20 cm long, 20 cm wide, and 20 cm tall.

a. What is the volume of Amy's fish tank?

b. If Amy's fish tank is half full, what is the volume of water in her tank?