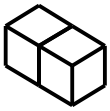
Name: _____

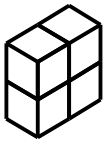
Grade 4

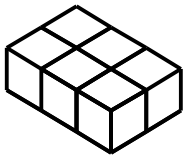
MEASUREMENT: VOLUME

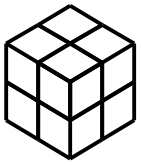
Don't forget to play *3D Boxes*. Go to **mathfrog.ca** for the link.

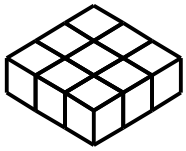
1. Print the volume of each object (rectangular prism) in the blank provided.
(Note: The volume of each small cube is 1 cm^3.)

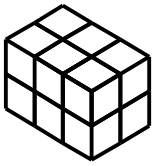
a)  _____ cm^3

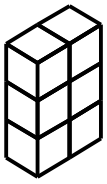
b)  _____ cm^3

c)  _____ cm^3

d)  _____ cm^3

e)  _____ cm^3

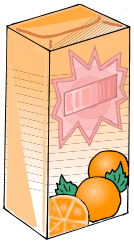
f)  _____ cm^3

g)  _____ cm^3

Remember!
The **volume** of an object is the amount of space it fills. Units of volume include cm^3, m^3, and mL.

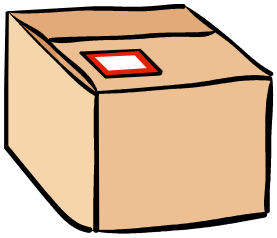
2. Neatly draw a rectangular prism (use centicubes as above) with a volume of:
a) 8 cm^3 b) 18 cm^3

3. Paul buys a crate that contains 12 juice-boxes. Each juice-box has a capacity of 200mL. There is no wasted space between the juice-boxes. What is the volume of the crate?



The volume of the crate is _____ mL

Math Fact
$1cm^3$ has a capacity of 1mL. Milliliters are often used for volumes of liquid. Also, 1000 mL = 1 L.



Expectations: i) estimate, measure, and record volume, and relate volume to the space taken up by an object.

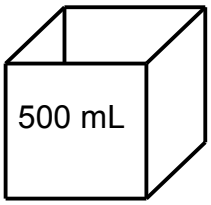
4. For each of the following, print the number of full containers needed to fill a 1 L jug.

a) 

_____

b) 

_____

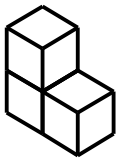
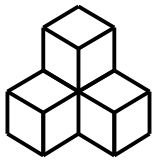
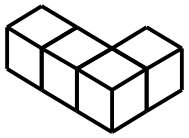
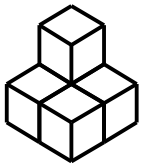
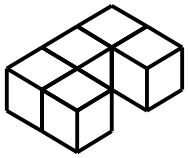
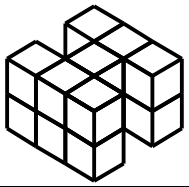
c) 

_____

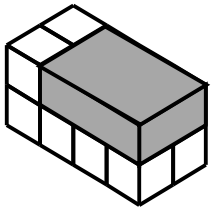
d) 

_____

5. Print the volume of each object. (Each small cube (centicube) has a volume of 1 cm^3)

a)  _____ cm^3	b)  _____ cm^3	c)  _____ cm^3
d)  _____ cm^3	e)  _____ cm^3	f)  _____ cm^3

6. The rectangular prism below was created using centicubes and one larger shaded block. What is the volume of the shaded block?



The volume of the shaded block is _____ cm^3

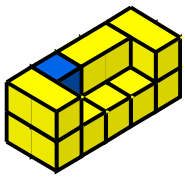
Try This!

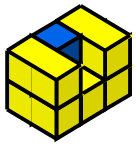
Using Lego bricks, Courtney wishes to build furniture for her toy house. She has two types of bricks. Each large yellow brick has a volume of 4 cm^3. Each small dark blue brick has a volume of 2 cm^3. She wishes to build the couch, chair, and table shown below. Complete the table at the lower left.

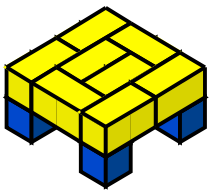
Courtney has only 248cm^3 of Lego bricks. She must build at least one couch, one chair, and one table. How many of each must she build so that all the bricks will be used?

Couch(es)_____ Chair(s)_____ Table(s)_____

Furniture	Volume
Couch	
Chair	
Table	







If you have time, go to http://pbskids.org/cyberchase/games/liquidvolume/ and play Can You Fill It?

Expectations: i) estimate, measure, and record volume, and relate volume to the space taken up by an object.