Name: _____

Unit 3B Study Guide & Review - **Quiz when we return from winter break**

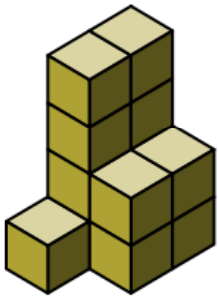**Vocabulary:**

Volume:                     The measurement of the **amount of space taken** up by something with three dimensions (LxWxH)

Unit³:                      A unit of measurement for volume (cubic units)  LXWXH
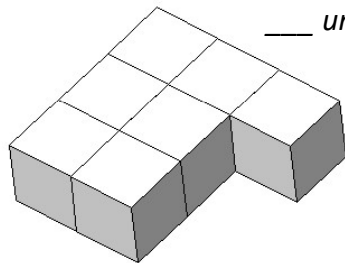
Area:                       The measurement of a **flat surface** (LxW)

Unit²:                      A unit of measurement for area (squared units) LXW

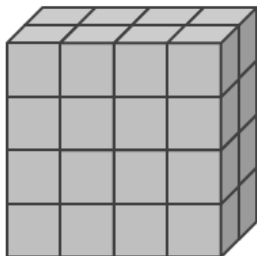**Count the number of cubic units:**

_____ unit cubes

_____ unit cubes

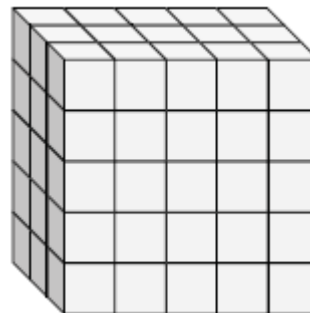_____ unit cubes

_____ unit cubes

**Count the layers, cubes per layer (AREA), calculate volume:**

*Number of layers:* _____

*Number of cubes per layer:* _____

*Volume:* _____ cubic units

*Number of layers:* _____

*Number of cubes per layer:* _____
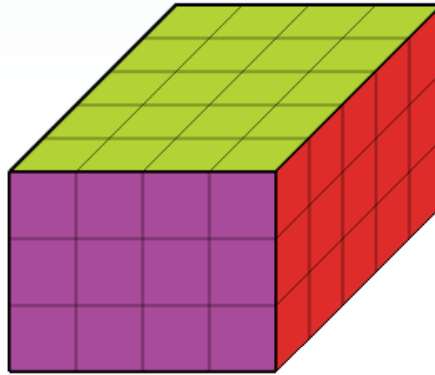
*Volume:* _____ cubic units

Name: _____

Unit 3B Study Guide & Review

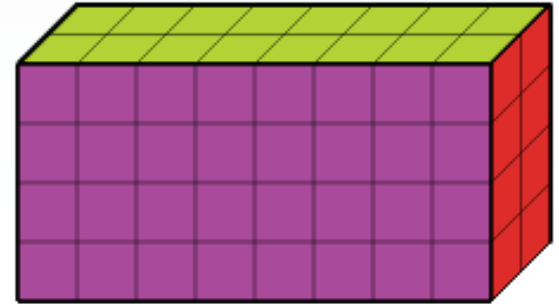**Use the information below to answwer Parts A-C**

**BOX A**                    **BOX B**



How many unit cubes fit into Box A?

_____

How did you figure that out?

How many unit cubes fit into Box B?

_____

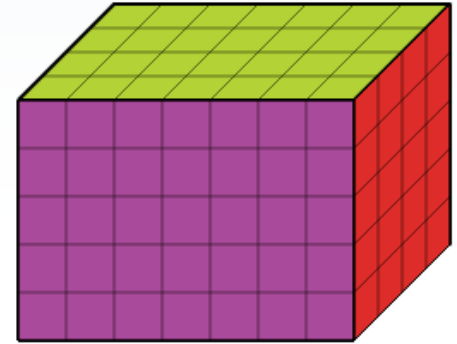How did you figure that out?

Which box has the greater volume?
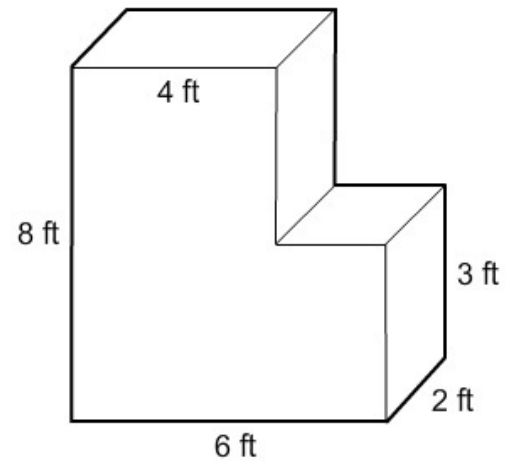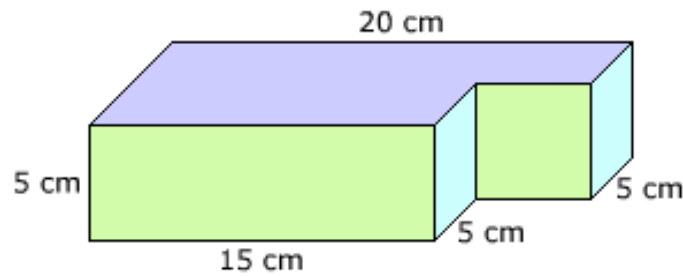
_____

Explain your thinking:

## Find the volume of these rectangular prisms:

Length:   8 inches

Width:    6 inches

Height:   4 inches


Volume: _____
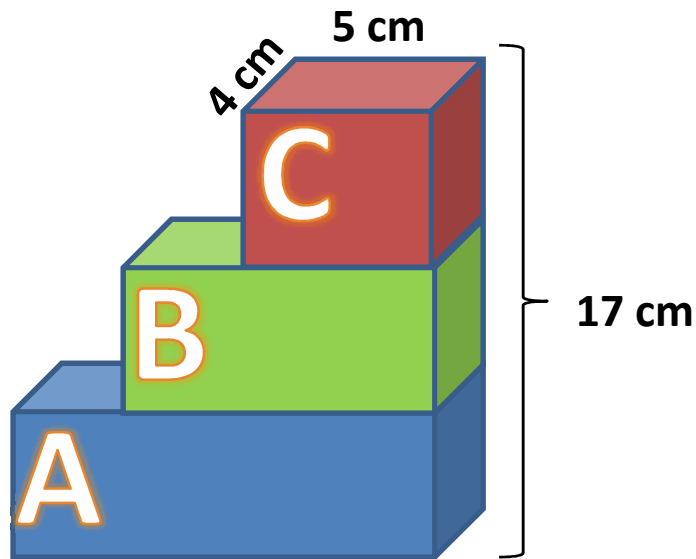
Area of the Base = 40 cm²

Height:   5 cm


Volume: _____

## Find the TOTAL volume of these composite prisms:

20 cm

5 cm

15 cm

5 cm

5 cm

5 cm

4 ft

8 ft

3 ft

2 ft

6 ft

Name: _____

Unit 3B Study Guide & Review

## Extended Constructed Response:

**5 cm**

**4 cm**

C

B

A

**17 cm**

Box A is 20 cm, by  4 cm, by 5 cm

Box B is 9 cm, by 4 cm, by 5 cm

**Find the dimensions of all 3 boxes**

Volume of Box A:

**20 x 4 x 5 = _____ cm$^3$**

Volume of Box B:

**9 x 4 x 5 = _____ cm$^3$**

Volume of Box C:

**____ x ____ x ____ = _____ cm$^3$**