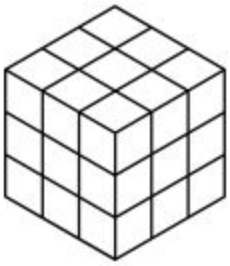
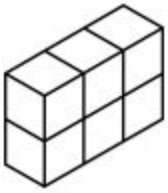
Name: _____

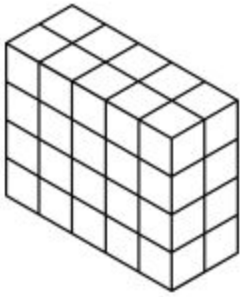
Level 1: Review

For each figure:

1. **Count the volume**
2. **Label the length, the width, and the height.**
3. **Describe how the figure's dimensions and the total volume are related.**







Level 2: Apply

Solve each real-world problem, draw a model or show work to support your reasoning.

The Smith family wants to fill their swimming pool to the very top with water. The length of the pools is 10 feet and the width is 6 feet. The pool is 5 feet deep.

How much water will the pool hold?

A box of laundry detergent is 12 inches tall, 7 inches long, and 3 inches wide.

What is the volume of the laundry detergent box?

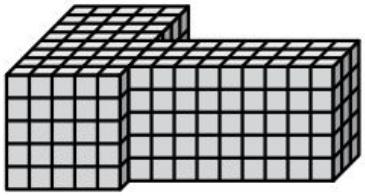
Mike has a box that is 15 inches, by 10 inches, by 8 inches.

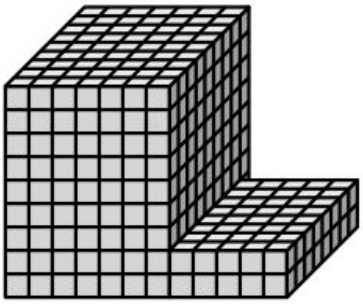
He wants to fill the box with one cubic inch cubes.

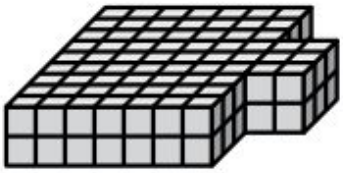
How many cubes can he fit in the box?

Level 3: Extend

Calculate the volume for each of the composite solids below.
Show all work and justify your reasoning.







Reflection/Discussion Questions:

1) What is volume?

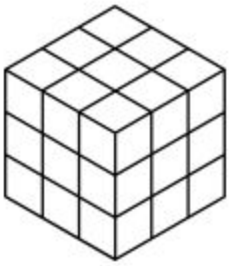
2) How do you calculate the volume of composite solids?

KEY

Level 1: Review

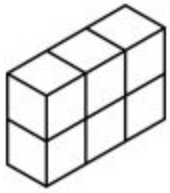
For each figure:

1. **Count the volume**
2. **Label the length, the width, and the height.**
3. **Describe how the figure's dimensions and the total volume are related.**



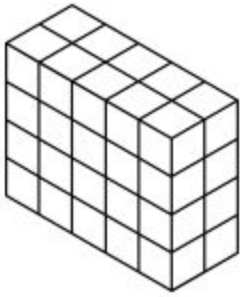
Volume= 27 cubic units
Length = 3 units
Width = 3 units
Height = 3 units

Volume is equal to the product of length width and height.



Volume= 6 cubic units
Length = 3 units
Width = 1 units
Height = 2 units

Volume is equal to the product of length width and height.



Volume= 40 cubic units
Length = 5 units
Width = 2 units
Height = 4 units

Volume is equal to the product of length width and height.

Level 2: Apply

Solve each real-world problem, draw a model or show work to support your reasoning.

The Smith family wants to fill their swimming pool to the very top with water. The length of the pools is 10 feet and the width is 6 feet. The pool is 5 feet deep.

How much water will the pool hold?

300 ft^3

A box of laundry detergent is 12 inches tall, 7 inches long, and 3 inches wide.

What is the volume of the laundry detergent box?

252 in^3

Mike has a box that is 15 inches, by 10 inches, by 8 inches.

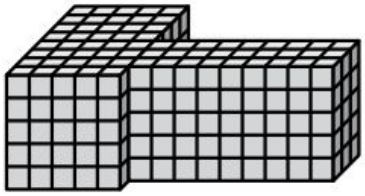
He wants to fill the box with one cubic inch cubes.

How many cubes can he fit in the box?

Volume is 1200 cubic inches so 1200 one inch cubes can fit in the box.

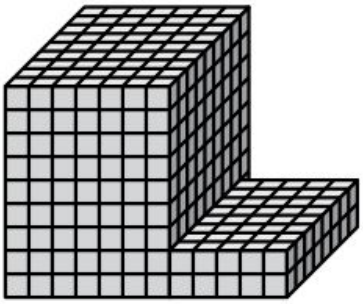
Level 3: Extend

Calculate the volume for each of the composite solids below.
Show all work and justify your reasoning.



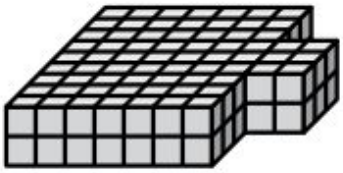
5x5x8 = 200
9x5x3 = 135

Total Volume = 335 cubic units



7x9x9 = 567
5x2x8 = 80

Total Volume = 647 cubic units



7x2x9 = 126
2x2x3 = 12

Total Volume = 138 cubic units

Reflection/Discussion Questions:

3) What is volume?

4) How do you calculate the volume of composite solids?