Date Time

LESSON 11·5

Area of a Rectangle

SRB 134

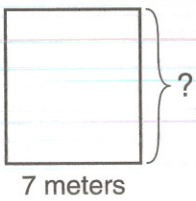
1. Write a formula for the area of a rectangle. In your formula, use *A* for area. Use *l* and *w* for length and width, or *b* and *h* for base and height.

_____

2. Draw a rectangle with sides measuring 3 centimeters and 9 centimeters. Find the area.

Number model: _____ Area = _____ square centimeters

3. Find the height of the rectangle.

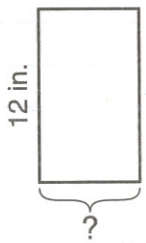


Area = 56 m^2

Number model: _____

height = _____ m

4. Find the length of the base of the rectangle.



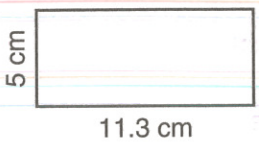
Area = 84 in^2

Number model: _____

length of base = _____ in.

Try This

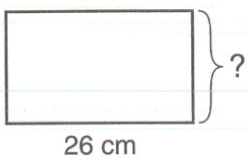
5. Find the area of the rectangle.



Number model: _____

Area = _____ cm^2

6. Find the height of the rectangle.



Area = 403 cm^2

Number model: _____

height = _____ cm

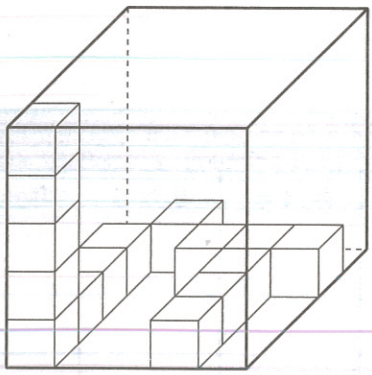
Date Time

LESSON 11·5

Math Boxes

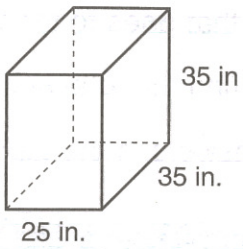
1. What is the total number of cubes needed to completely fill the box?

_____ cubes



SRB 138

2. Calculate the volume.



Number model: _____

Volume = _____ in^3

SRB 138

3. When you roll a 6-sided die, about what fraction of the time would you expect

a. a multiple of 2 to come up? _____

b. a factor of 20 to come up? _____

SRB 81

4. Complete.

a. 13 ft = _____ yd _____ ft

b. 18 ft 6 in. = _____ yd _____ in.

c. 972 in. = _____ yd

d. 15,840 ft = _____ mi

e. 24,640 yd = _____ mi

SRB 129

5. Add.

a. $-54 + 28 =$ _____

b. $-62 + (-15) =$ _____

c. _____ $= 51 + (-139)$

d. _____ $= -\$23.56 + \$87.45$

e. $\$71.08 + (-\$85.79) =$ _____

6. If 4 shirts cost $76, what is the cost of

a. 2 shirts? _____

b. 6 shirts? _____

c. 1 dozen shirts? _____

d. 75 shirts? _____

SRB 47

Date Time

LESSON 11·5

Cube-Stacking Problems

SRB 138

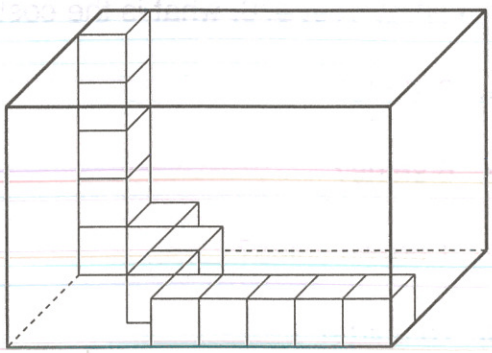
Each picture at the bottom of this page and on the next page shows a box that is partially filled with cubes. The cubes in each box are the same size. Each box has at least one stack of cubes that goes to the top.

Your task is to find the total number of cubes needed to completely fill each box.

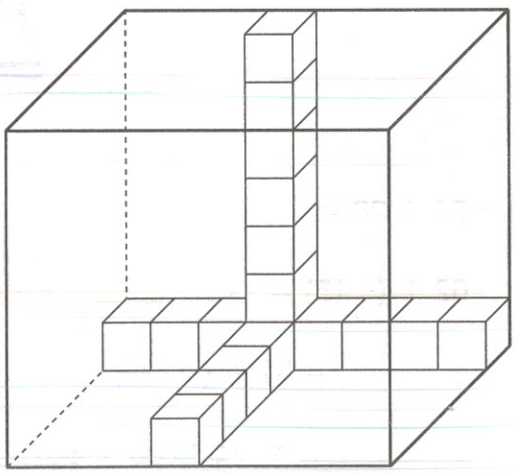
Record your answers in the table below.

Table of Volumes

Placement of Cubes	Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
Number of cubes needed to cover the bottom						
Number of cubes in the tallest stack (Be sure to count the bottom cube.)						
Total number of cubes needed to fill the box						



Box 1

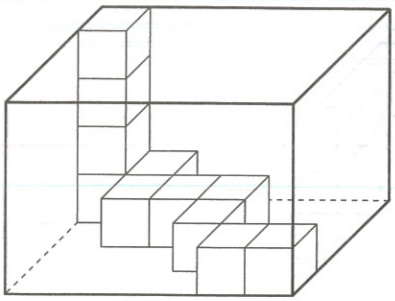


Box 2

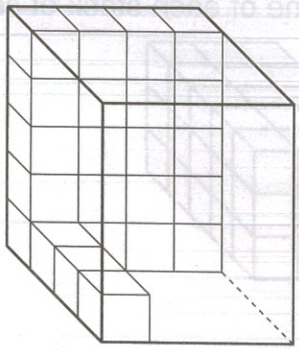
LESSON 11•5

Cube-Stacking Problems *continued*

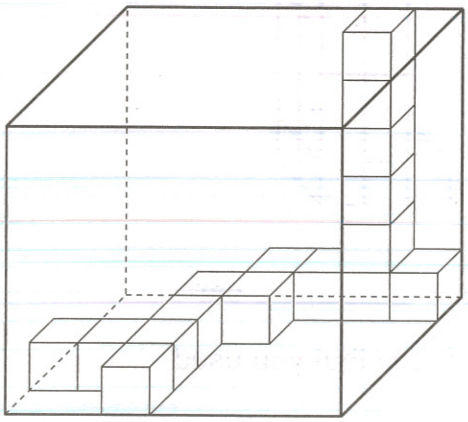
SRB 138



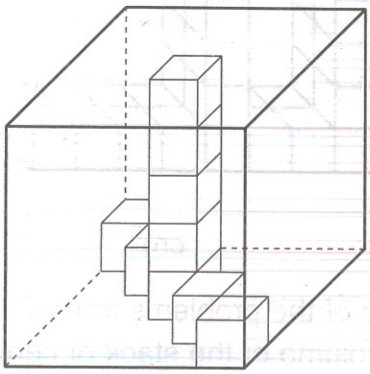
Box 3



Box 4



Box 5



Box 6

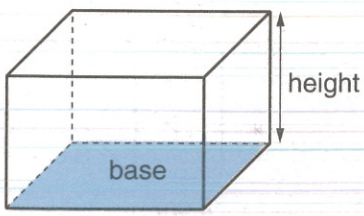
Formula for the volume of a rectangular prism:

_____

B is the **area** of a base.

h is the height from that base.

Volume units are cubic units.



Date Time

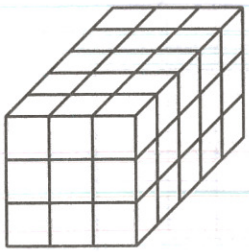
LESSON 11·5

Cube-Stacking Problems *continued*

SRB 138

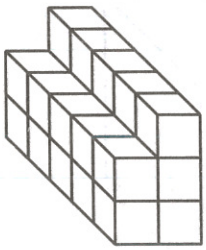
Find the volume of each stack of centimeter cubes.

1.



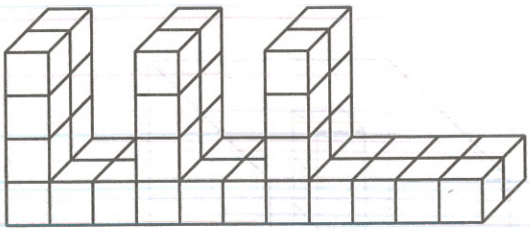
Volume = _____ cm^3

2.



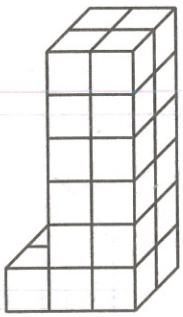
Volume = _____ cm^3

3.



Volume = _____ cm^3

4.



Volume = _____ cm^3

5. Choose one of the problems from above. Describe the strategy that you used to find the volume of the stack of centimeter cubes.

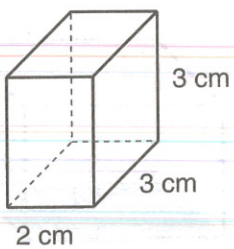
_____

_____

_____

Try This

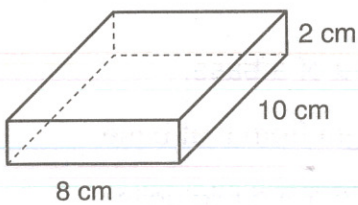
6.



Number model: _____

Volume = _____ cm^3

7.



Number model: _____

Volume = _____ cm^3

Name Date Time

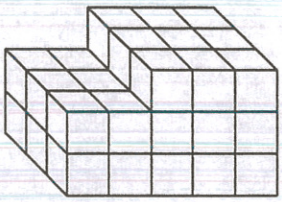
STUDY LINK 11•5

Volume

SRB 137 138

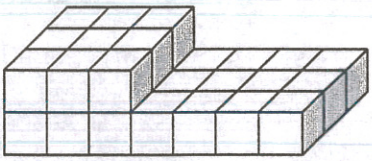
1. Find the volume of each stack of centimeter cubes.

a.



Volume = _____ cm^3

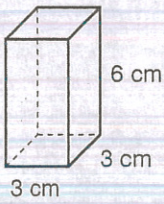
b.



Volume = _____ cm^3

2. Calculate the volume of each rectangular prism.

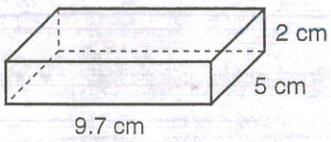
a.



Number model: _____

Volume = _____ cm^3

b.

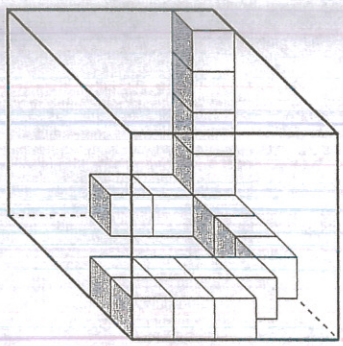


Number model: _____

Volume = _____ cm^3

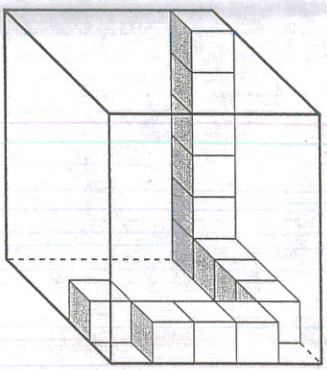
3. What is the total number of cubes needed to completely fill each box?

a.



_____ cubes

b.



_____ cubes

Practice

4. $-65 + 16 =$ _____

5. _____ $= -21 + (-19)$

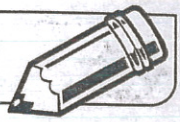
6. _____ $= 84 + (-55)$

7. $-16 + 89 =$ _____

Name Date Time

LESSON 11•5

Hidden Cubes

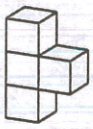


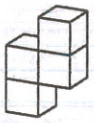
1. The stacks of cubes shown below are called *soma cubes* and were first designed in 1936 by Piet Hein, a Danish poet and scientist.

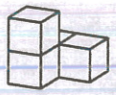
Use interlocking cubes to build the stacks shown below. Use a small stick-on note to label each stack with the appropriate letter. Then record the number of cubes needed to build each stack.

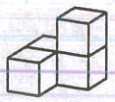
A  ____ cubes

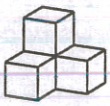
B  ____ cubes

C  ____ cubes

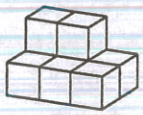
D  ____ cubes

E  ____ cubes

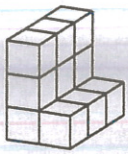
F  ____ cubes

G  ____ cubes

Use the cube stacks that you made above to build each of the figures below. The figures do not have any hidden holes. Record the number of cubes needed to build each figure and the cube stacks that you used.

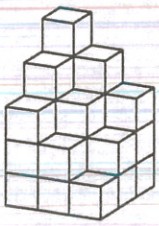
2.  ____ cubes

I used the following cube stacks to build the figure: _____

3.  ____ cubes

I used the following cube stacks to build the figure: _____

Try This

4.  ____ cubes

I used the following cube stacks to build the figure: _____