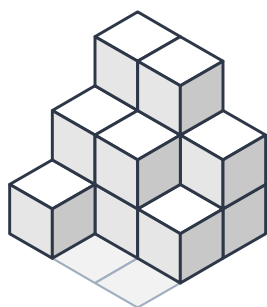


Solid Figures and Volume

Unit Test, Form A (page 1 of 2)

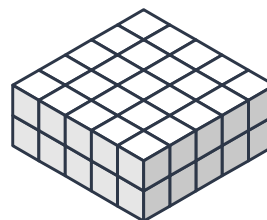
Score _____ / 12

1. Each cube is 1 cubic unit. What is the volume of the figure?



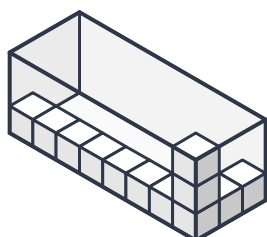
Volume = _____
cubic units

2. Each cube is 1 cubic centimeter. Write the volume of the full box and its unit.



Volume: _____

3. How many unit cubes fill the box? Fill in the blanks.



Bottom layer: _____

Layers: _____

Volume: _____
cubic units

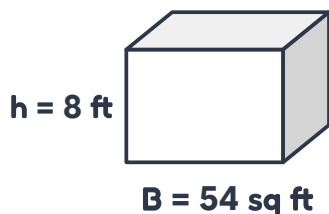
4. Use $V = l \times w \times h$ to find the volume.



not to scale

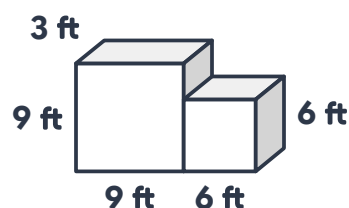
$V =$ _____
cubic cm

5. Use $V = B \times h$ to find the volume.



$V =$ _____
cubic ft

6. The shape is made of two rectangular prisms. Find its volume.



$V =$ _____
cubic ft

Solid Figures and Volume

Unit Test, Form A (page 2 of 2)

7. Solve the story problem.

A tray is **15** inches long, **9** inches wide and **3** inches deep. How much space is inside the tray?

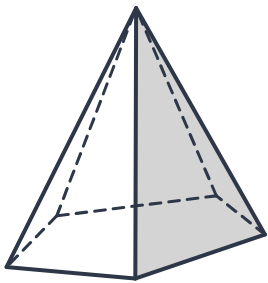
_____ cubic inches

8. Solve the story problem.

A shelf holds two storage bins. One bin is **13** in. by **6** in. by **5** in. The other is **11** in. by **6** in. by **5** in. How much space is inside the two bins?

_____ cubic inches

9. How many faces, edges and vertices does the solid have?

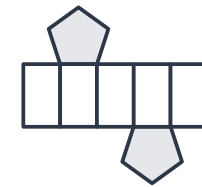


_____ faces

_____ edges

_____ vertices

10. Name the solid the net folds into.





11. Find the missing edge. Then write the edges of a box with the same volume and different edge lengths.



$V = 336$
cubic in.

not to scale

A different box:

_____ × _____ × _____ in.

12. Circle the measure the story asks for. Then solve. Write the unit.

A game table top is **8** ft long and **5** ft wide. How much felt covers the top?

perimeter area volume

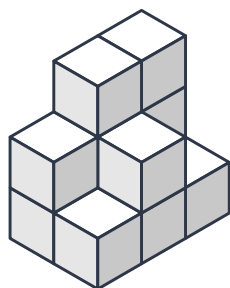
Answer: _____

Solid Figures and Volume

Unit Test, Form B (page 1 of 2)

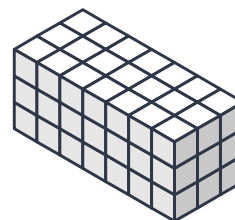
Score _____ / 12

1. Each cube is 1 cubic unit. What is the volume of the figure?



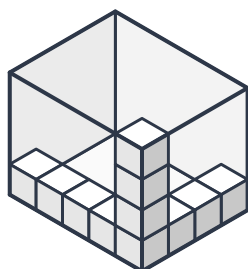
Volume = _____
cubic units

2. Each cube is 1 cubic inch. Write the volume of the full box and its unit.



Volume: _____

3. How many unit cubes fill the box?
Fill in the blanks.



Bottom layer: _____

Layers: _____

Volume: _____
cubic units

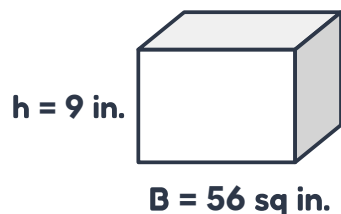
4. Use $V = l \times w \times h$ to find the volume.



not to scale

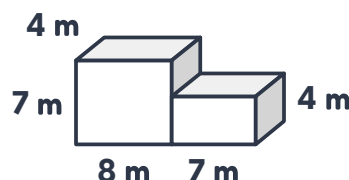
$V =$ _____
cubic ft

5. Use $V = B \times h$ to find the volume.



$V =$ _____
cubic in.

6. The shape is made of two rectangular prisms. Find its volume.



$V =$ _____
cubic m

Solid Figures and Volume

Unit Test, Form B (page 2 of 2)

7. Solve the story problem.

A drawer is **14 inches** long, **7 inches** wide and **4 inches** deep. How much space is inside the drawer?

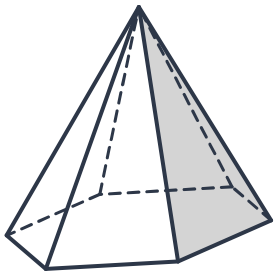
_____ cubic inches

8. Solve the story problem.

A bookend is made of two wooden blocks. One block is **16 cm** by **8 cm** by **2 cm**. The other is **18 cm** by **8 cm** by **2 cm**. What is the volume of the bookend?

_____ cubic centimeters

9. How many faces, edges and vertices does the solid have?



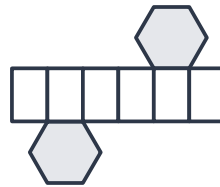
_____ faces

_____ edges

_____ vertices

10. Name the solid the net folds into.

Then circle each pattern that folds into a cube.





11. Find the missing edge. Then write the edges of a box with the same volume and different edge lengths.



$V = 135$
cubic m

not to scale

A different box:

_____ × _____ × _____ m

12. Circle the measure the story asks for. Then solve. Write the unit.

A patio is **12 m** long and **9 m** wide. How much of the yard does the patio cover?

perimeter area volume

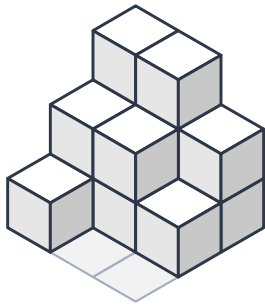
Answer: _____

Solid Figures and Volume

Unit Test, Form A (page 1 of 2)

Score _____ / 12

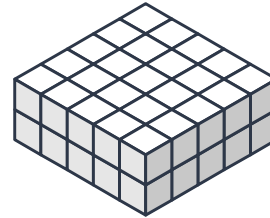
1. Each cube is 1 cubic unit. What is the volume of the figure?



Volume = 14
cubic units

Lesson 11.3 · Unit cubes and cubic units

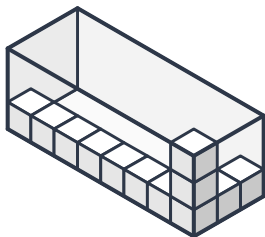
2. Each cube is 1 cubic centimeter. Write the volume of the full box and its unit.



Volume: 50 cubic centimeters
or 50 cubic cm

Lesson 11.4 · Count cubes to find volume

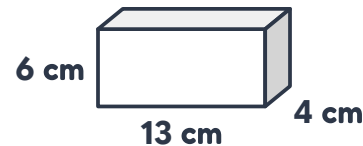
3. How many unit cubes fill the box? Fill in the blanks.



Bottom layer: 24
Layers: 3
Volume: 72
cubic units

Lesson 11.5 · Bottom layer times layers

4. Use $V = l \times w \times h$ to find the volume.

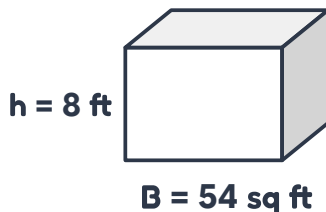


not to scale

$V =$ 312
cubic cm

Lesson 11.6 · The volume formulas

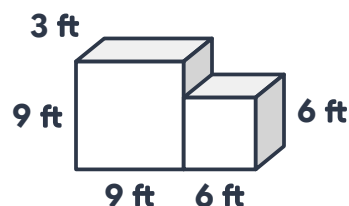
5. Use $V = B \times h$ to find the volume.



$V =$ 432
cubic ft

Lesson 11.6 · The volume formulas

6. The shape is made of two rectangular prisms. Find its volume.



$V =$ 351
cubic ft

One way: $243 + 108$

Lesson 11.8 · Two prisms together

Solid Figures and Volume

Unit Test, Form A (page 2 of 2)

7. Solve the story problem.

A tray is 15 inches long, 9 inches wide and 3 inches deep. How much space is inside the tray?

405 cubic inches

Lesson 11.9 · Volume stories

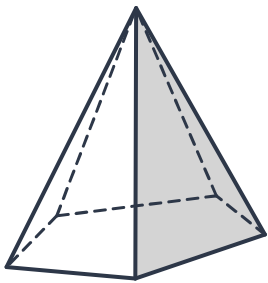
8. Solve the story problem.

A shelf holds two storage bins. One bin is 13 in. by 6 in. by 5 in. The other is 11 in. by 6 in. by 5 in. How much space is inside the two bins?

720 cubic inches

Lesson 11.9 · Volume stories

9. How many faces, edges and vertices does the solid have?



6 faces

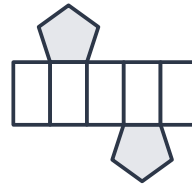
10 edges

6 vertices

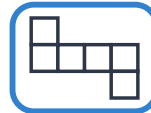
Lesson 11.1 · Solid figures

10. Name the solid the net folds into.

Then circle each pattern that folds into a cube.



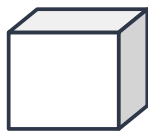
pentagonal prism



Lesson 11.2 · Nets of solids

11. Find the missing edge. Then write the edges of a box with the same volume and different edge lengths.

7 in.



8 in.

6 in.

$V = 336$
cubic in.

not to scale

A different box:

One way

4 × 12 × 7 in.

Lesson 11.7 · Missing edges and same volume

12. Circle the measure the story asks for. Then solve. Write the unit.

A game table top is 8 ft long and 5 ft wide. How much felt covers the top?

perimeter

area

volume

Answer: 40 square feet

or 40 sq ft

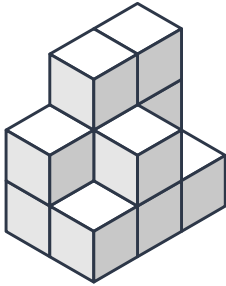
Lesson 11.10 · Perimeter, area or volume

Solid Figures and Volume

Unit Test, Form B (page 1 of 2)

Score _____ / 12

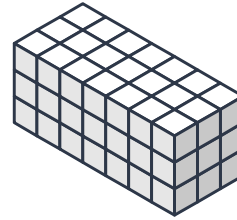
1. Each cube is 1 cubic unit. What is the volume of the figure?



Volume = 12
cubic units

Lesson 11.3 · Unit cubes and cubic units

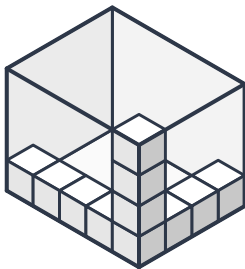
2. Each cube is 1 cubic inch. Write the volume of the full box and its unit.



Volume: 63 cubic inches
or 63 cubic in.

Lesson 11.4 · Count cubes to find volume

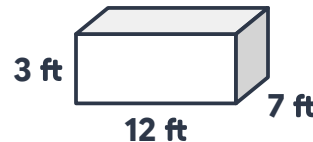
3. How many unit cubes fill the box?
Fill in the blanks.



Bottom layer: 20
Layers: 4
Volume: 80
cubic units

Lesson 11.5 · Bottom layer times layers

4. Use $V = l \times w \times h$ to find the volume.

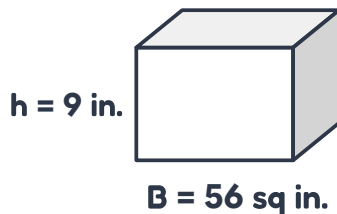


not to scale

$V = \frac{252}{\text{cubic ft}}$

Lesson 11.6 · The volume formulas

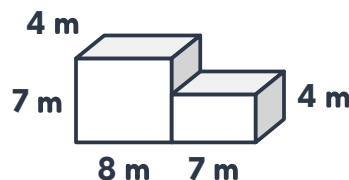
5. Use $V = B \times h$ to find the volume.



$V = \frac{504}{\text{cubic in.}}$

Lesson 11.6 · The volume formulas

6. The shape is made of two rectangular prisms. Find its volume.



$V = \frac{336}{\text{cubic m}}$

One way: $224 + 112$

Lesson 11.8 · Two prisms together

Solid Figures and Volume

Unit Test, Form B (page 2 of 2)

7. Solve the story problem.

A drawer is 14 inches long, 7 inches wide and 4 inches deep. How much space is inside the drawer?

392 cubic inches

Lesson 11.9 · Volume stories

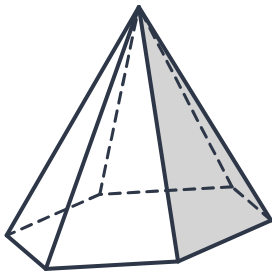
8. Solve the story problem.

A bookend is made of two wooden blocks. One block is 16 cm by 8 cm by 2 cm. The other is 18 cm by 8 cm by 2 cm. What is the volume of the bookend?

544 cubic centimeters

Lesson 11.9 · Volume stories

9. How many faces, edges and vertices does the solid have?



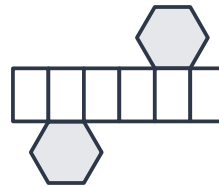
7 faces

12 edges

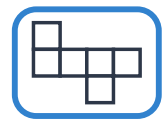
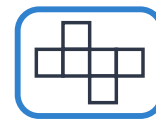
7 vertices

Lesson 11.1 · Solid figures

10. Name the solid the net folds into. Then circle each pattern that folds into a cube.



hexagonal prism



Lesson 11.2 · Nets of solids

11. Find the missing edge. Then write the edges of a box with the same volume and different edge lengths.



$V = 135$
cubic m

not to scale

A different box:

One way

3 × 3 × 15 m

Lesson 11.7 · Missing edges and same volume

12. Circle the measure the story asks for. Then solve. Write the unit.

A patio is 12 m long and 9 m wide. How much of the yard does the patio cover?

perimeter area volume

Answer: 108 square meters
or 108 sq m

Lesson 11.10 · Perimeter, area or volume