LESSON MAKER PRO

Box Space

Find the volume of rectangular prisms.

GRADE 5 · 5.GR.C.5.b

5.GR.C.5.b "Apply the formulas V = (l)(w)(h) and V = (B)(h) for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths to solve problems in the context."

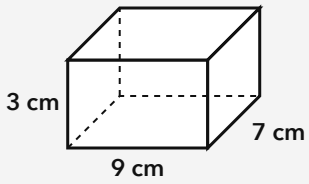
NAME _____ DATE _____

FIND THE VOLUME

Volume tells how much space is inside a rectangular prism. Multiply length, width, and height, or multiply the base area by the height. Use cubic units in your answer.

WORKED EXAMPLE

Find the volume of the prism shown.



1. V = l × w × h
2. V = 9 × 7 × 3
3. V = 63 × 3 = 189

Answer: 189 cm^3

PRACTICE 4 problems

1 A prism is 2 cm long, 4 cm wide, and 5 cm high. Find its volume.

ANSWER _____

2 Find the volume of a prism that is 6 in. long, 8 in. wide, and 2 in. high.

ANSWER _____

3 A prism has a base area of 24 cm^2 and a height of 5 cm. Find its volume.

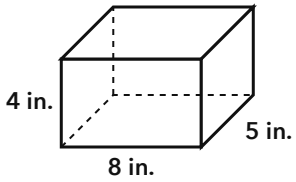
ANSWER _____

4 A prism is 10 cm long, 11 cm wide, and 2 cm high. Find its volume.

ANSWER _____

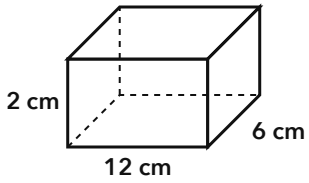
APPLY IT Show your work

1 A board game comes in the box shown. What is the box's volume?



ANSWER _____

2 A small box holds trading cards. What is its volume?



ANSWER _____

CHALLENGE One step up

Two identical storage boxes are each 11 cm long, 6 cm wide, and 4 cm high. What is their total volume? Explain how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Box Space

GRADE 5 · 5.GR.C.5.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A prism is 2 cm long, 4 cm wide, and 5 cm high. Find its volume.	**40 cm^3**
2	Find the volume of a prism that is 6 in. long, 8 in. wide, and 2 in. high.	**96 in^3**
3	A prism has a base area of 24 cm^2 and a height of 5 cm. Find its volume.	**120 cm^3**
4	A prism is 10 cm long, 11 cm wide, and 2 cm high. Find its volume.	**220 cm^3**

PART 2 · APPLY IT

1. **160 in^3** Multiply 8 × 5 × 4 to get 160 cubic inches.
2. **144 cm^3** Multiply 12 × 6 × 2 to get 144 cubic centimeters.

CHALLENGE

528 cm^3. Each box has a volume of 11 × 6 × 4 = 264 cm^3, so two boxes have a total volume of 528 cm^3.

Accept multiplication in any order. Answers must use cubic units.