

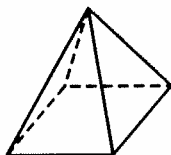
Study Guide

Three Dimensional Figures

Pyramids are named by their bases.

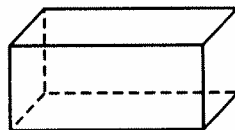


triangular pyramid

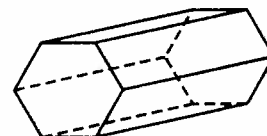


square pyramid

Prisms have two parallel congruent bases.

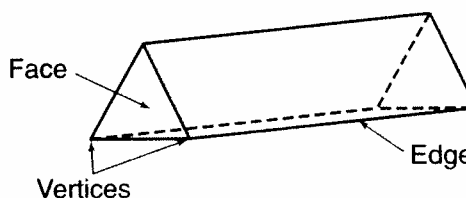


rectangular prism



hexagonal prism

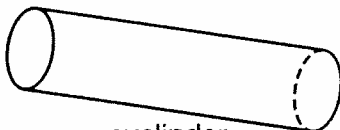
The polygons that form three-dimensional figures are called **faces**.
The faces intersect to form **edges**.
The edges intersect to form **vertices**.



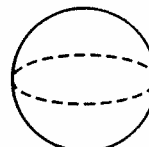
Some three-dimensional figures have curved surfaces.
They do not have polygons for faces.



cone



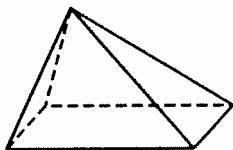
cylinder



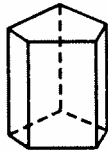
sphere

Name each figure.

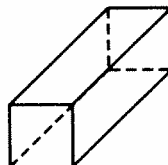
1.



2.



3.



4.



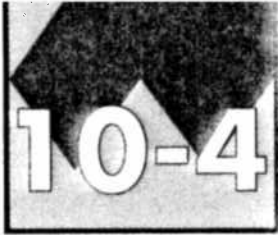
State the number of faces, edges, and vertices in each figure.

5. triangular prism

6. rectangular pyramid

7. hexagonal prism

8. pentagonal pyramid

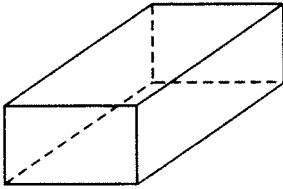


Practice

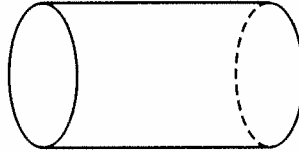
Three-Dimensional Figures

Name each figure.

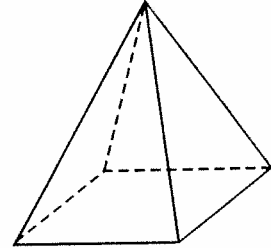
1.



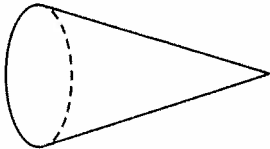
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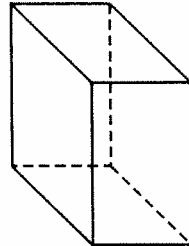
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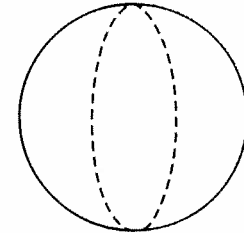
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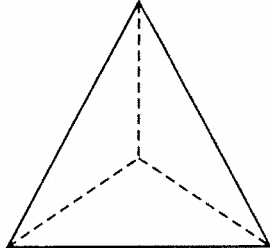
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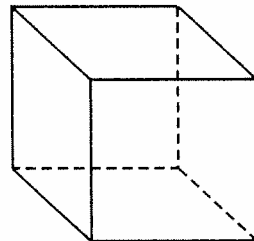
6.



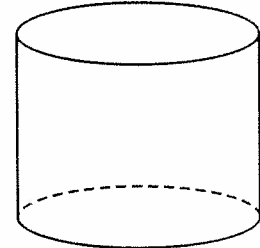
7.



8.



9.



Complete the chart by writing the number of faces, edges, and vertices for each figure.

	Figure	Number of Faces	Number of Edges	Number of Vertices
10.	triangular pyramid			
11.	rectangular prism			
12.	cylinder			
13.	sphere			
14.	square pyramid			
15.	cone			
16.	hexagonal pyramid			



Study Guide

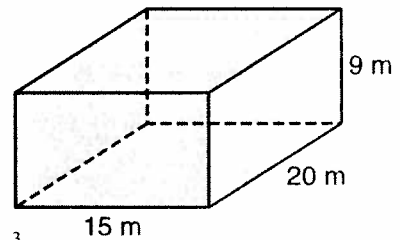
Volume of Rectangular Prisms

The volume (V) of a rectangular prism equals the product of its length (ℓ), its width (w), and its height (h): $V = \ell wh$.

Example Find the volume of the rectangular prism.

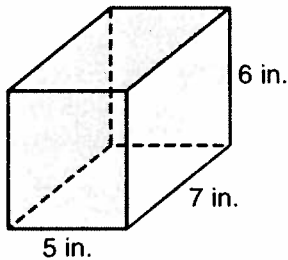
$$\begin{aligned}V &= \ell wh \\V &= 20 \times 15 \times 9 \\V &= 2,700\end{aligned}$$

The volume of the rectangular prism is $2,700 \text{ m}^3$.

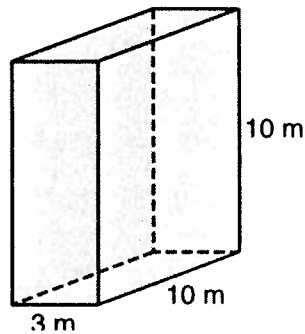


Find the volume of each rectangular prism.

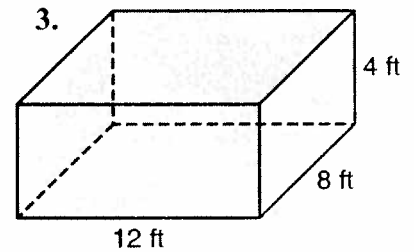
1.



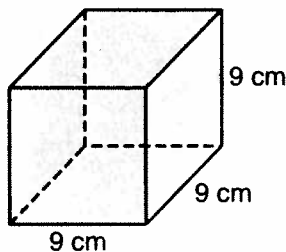
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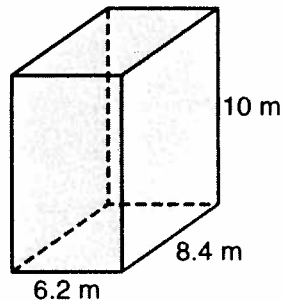
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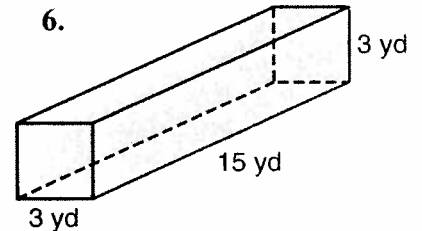
4.



5.



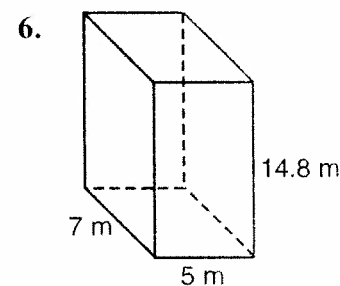
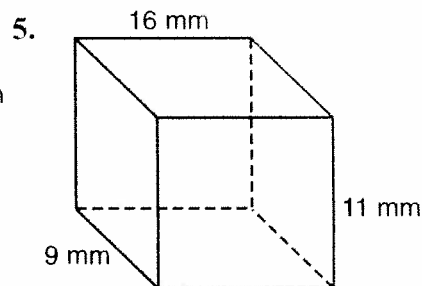
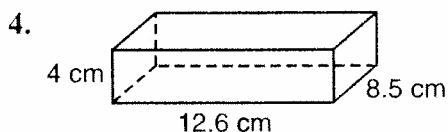
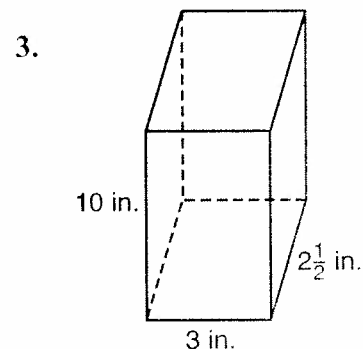
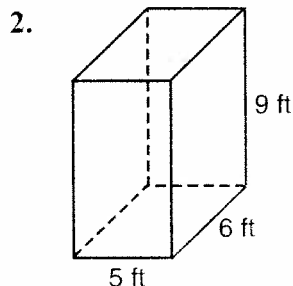
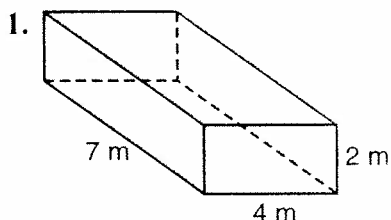
6.



7. length, 11 ft
width, 6 ft
height, 15 ft

8. length, 9 mm
width, 12 mm
height, 20 mm

Practice

Volume of Rectangular Prisms**Find the volume of each rectangular prism.**

7. length, 21 mm
width, 15 mm
height, 18 mm

8. length, 8 in.
width, 13 in.
height, 17 in.

9. length, 11 cm
width, 6.3 cm
height, 3.6 cm

10. length, 4 m
width, 19 m
height, 10.6 m

11. length, 12 ft
width, 5 ft
height, 16 ft

12. length, 24 mm
width, 3 mm
height, 9 mm

13. Find the volume of a rectangular prism whose length is 19 feet, width is 15 feet, and height is 17 feet.

14. The town of Riverview provides a rectangular recycling bin for each household. The bin measures $20\frac{1}{2}$ inches by 12 inches by 16 inches. Find the volume of the recycling bin.

15. Janine keeps her jewelry in a jewelry box that measures 9 centimeters by 4.5 centimeters by 3 centimeters. What is the volume of her jewelry box?