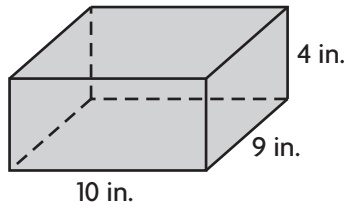


1. Kristin drew a triangle with 2 congruent sides and 1 obtuse angle. Which term accurately describes the triangle? Mark all that apply.

- (A) isosceles
- (B) scalene
- (C) acute
- (D) obtuse

2. Erin stores her photos in a box like the one shown.

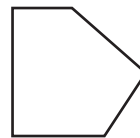


Use the numbers and symbols on the tiles to write a formula that represents the volume of the box. Symbols may be used more than once or not at all.

What is the volume of the box?

_____ cubic inches

3. Mr. Diaz is building a fence around his yard. For numbers 3a–3b, choose the values and term that correctly describe the shape of Mr. Diaz's fence.



3a. The figure has _____ sides and _____ vertices.

3
4
5

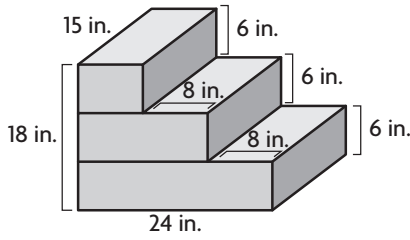
0
5
6

3b. None of the sides are congruent, so the figure is

a regular polygon
not a polygon.
not a regular polygon

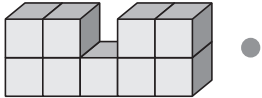


4. What is the volume of the composite figure?

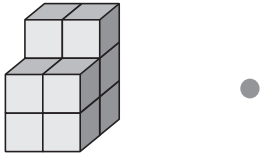


_____ cubic inches

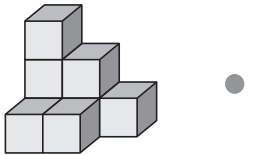
5. Match the figure with the number of unit cubes that would be needed to build each figure. Not every number of unit cubes will be used.



● 7 unit cubes



● 8 unit cubes



● 9 unit cubes

● 10 unit cubes

● 12 unit cubes

● 15 unit cubes

6. Edwin is working on his oral report about polyhedrons for his math class. He will show figures and organize them in different groups during his report.

Part A

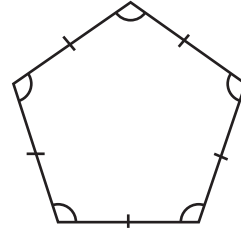
Edwin wants to show three-dimensional figures whose lateral faces are triangles. He says he can show prisms and pyramids. Do you agree? Explain your answer.

Part B

Edwin says that he can show a figure with a square base and congruent triangular faces. Is Edwin correct? Explain your reasoning.



7. Julia drew the shape shown. For numbers 7a–7b, choose the values and term that correctly describe the shape Julia drew.



7a. The figure has

4
5
6

 sides and

5
6
10

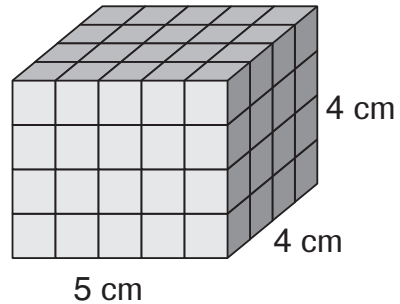
 angles.

7b. The figure is a

regular heptagon
regular hexagon
regular pentagon

.

8. Wendy used 1-centimeter cubes to build the rectangular prism shown. Find the volume of the rectangular prism Wendy built.



_____ cubic centimeters

9. Natalie drew an acute, isosceles triangle. For 9a–9c, choose Yes or No to indicate whether the figure shown could be the triangle that Natalie drew.

9a. Yes No

9b. Yes No

9c. Yes No



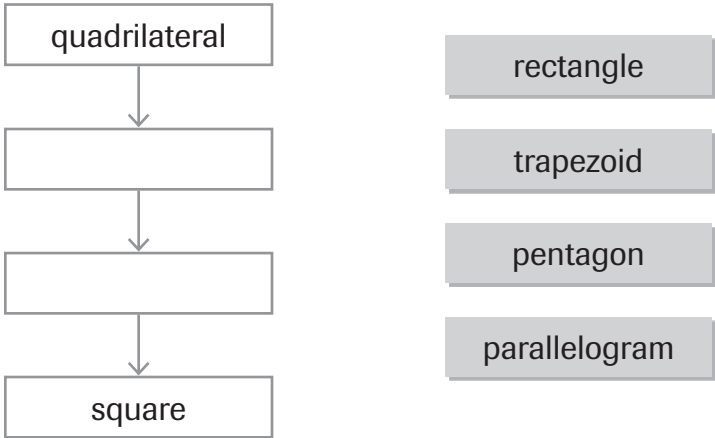
10. A shipping container holds 40 tissue boxes. The dimensions of a tissue box are 4 inches by 6 inches by 3 inches. For numbers 10a–10c, select True or False for each statement.

- 10a. Each tissue box has a volume of 72 cubic inches. True False
- 10b. Each container has a volume of about 1,440 cubic inches. True False
- 10c. If a container could hold 48 tissue boxes, the volume of the container would be about 624 cubic inches. True False

11. Ainsley is making a diagram that shows the relationship between different kinds of quadrilaterals. In the diagram, each quadrilateral on a lower level can also be described by the quadrilateral(s) above it on higher levels.

Part A

Complete the diagram by writing the name of one figure from the tiles in each box. Not every figure will be used.

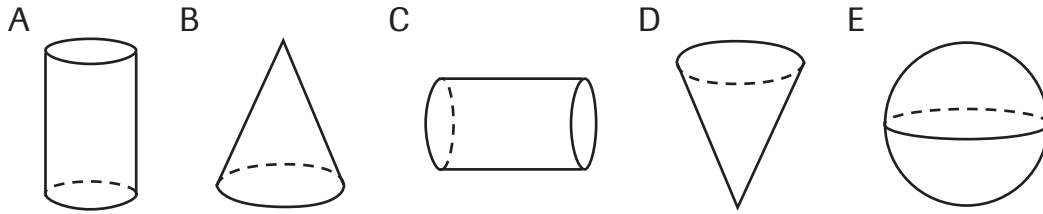


Part B

Ainsley claims that a rectangle is *sometimes* a parallelogram, but a parallelogram is *always* a rectangle. Is she correct? Explain your answer.



12. Write the letter in the box that correctly describes the three-dimensional figure.

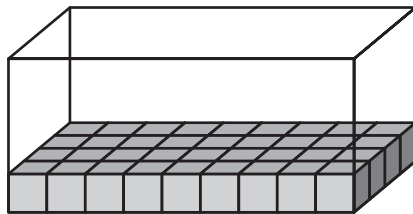


Cone

Sphere

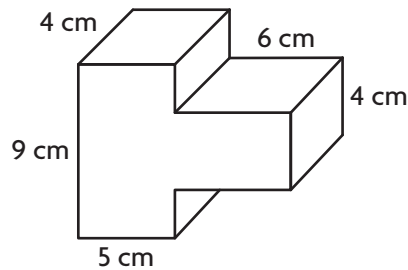
Cylinder

13. Jessica packed 1-inch cubes into a box with a volume of 144 cubic inches. How many layers of 1-inch cubes did Jessica pack?



_____ layers

14. A composite figure is shown. What is the volume of the composite figure?



Volume = _____ cubic centimeters

15. For numbers 15a–15c, write the name of one figure from the tiles to complete a true statement. Use each figure only once.

- 15a. A is never a parallelogram.
- 15b. A is sometimes a rhombus.
- 15c. A is always a rectangle.

16. A shipping container has a volume of 2,880 cubic inches. Which could be the dimensions of the container? Mark all that apply.

- A** 10 in. by 12 in. by 24 in. **C** 12 in. by 15 in. by 18 in.
- B** 12 in. by 12 in. by 20 in. **D** 10 in. by 16 in. by 20 in.

17. Tom keeps sticky notes in a box that is the shape of a cube. Each side of the box is 4 inches. What is the volume of the box?

_____ cubic inches

18. Donald used 1-inch cubes to make the rectangular prism shown. For numbers 18a–18d, write the value that makes each statement true. Each value can be used more than once or not at all.

-

- 18a. Each cube has a volume of _____ cubic inch(es).
- 18b. Each layer of the prism is made up of _____ cubes.
- 18c. There are _____ layers of cubes.
- 18d. The volume of the prism is _____ cubic inches.

