

Making a Figure Zoo

Each picture is a net, showing an unfolded polyhedron.

- 1 The face labeled F is a square.

Besides the square, what other figures make up the faces of this polyhedron?

- 2 What type of angle is in face F?

- 3 What type of angle does each non-square face contain?

- 4 Circle a pair of parallel edges on the net.

- 5 The faces labeled with an H are parallelograms.

What types of angles does face H contain?

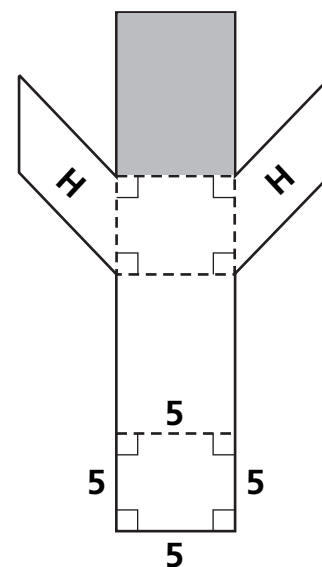
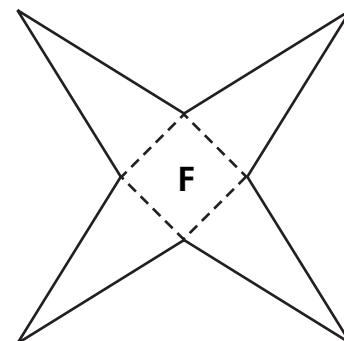
_____ and _____

- 6 What other figures make up the faces of this polyhedron?

_____ and _____

- 7 What type of angle does the shaded face contain?

- 8 Circle a pair of perpendicular edges on the edges of the net.



Describing Three-Dimensional Figures

1 Describe a prism.

2 Describe a pyramid.

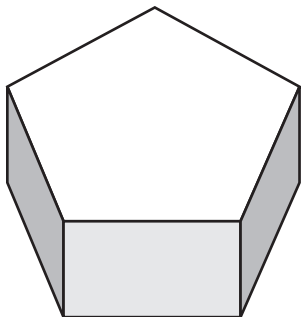
3 What are some differences between a prism and pyramid?

4 What are some similarities between a prism and pyramid?

Going On a Figure Safari

Write 3 clues that describe each of these figures.

1



A _____

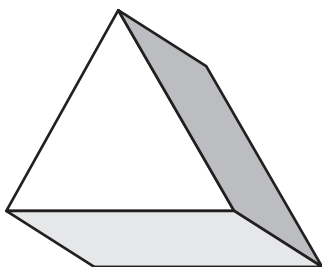
B _____

C _____

Could your clues describe another figure, in addition to the one shown?

yes or no

2



A _____

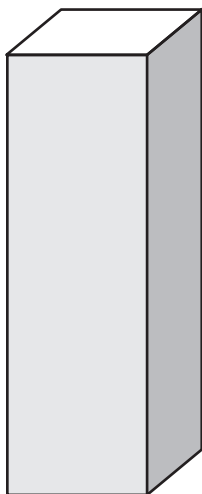
B _____

C _____

Could your clues describe another figure, in addition to the one shown?

yes or no

3



A _____

B _____

C _____

Could your clues describe another figure, in addition to the one shown?

yes or no

Finding the Area of Faces on Three-Dimensional Figures

Complete the first problem. Then use your answer to complete the second and third problems.

1 Mr. Garcia's classroom has four walls. He wants his class to make a mural for one of the walls. He cuts two large pieces of paper that are 24 feet long and 4 feet high. After students decorate the papers, he will tape them together and put them up so that the entire wall is covered. What is the area of the entire mural?

2 There are 24 students in Mr. Garcia's class. To be fair, he will draw lines on the mural papers to split them up so that each student has the same amount of paper to draw on. How much space should each student get?

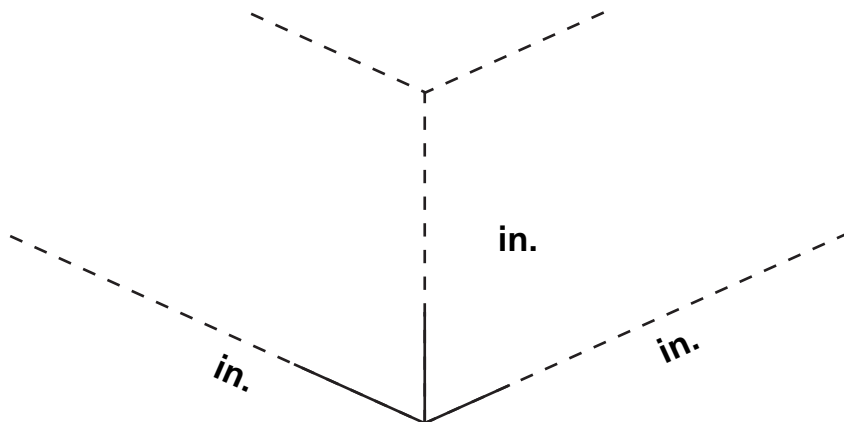
3 What might be the dimensions of the space each student receives for drawing?

_____ ft × _____ ft

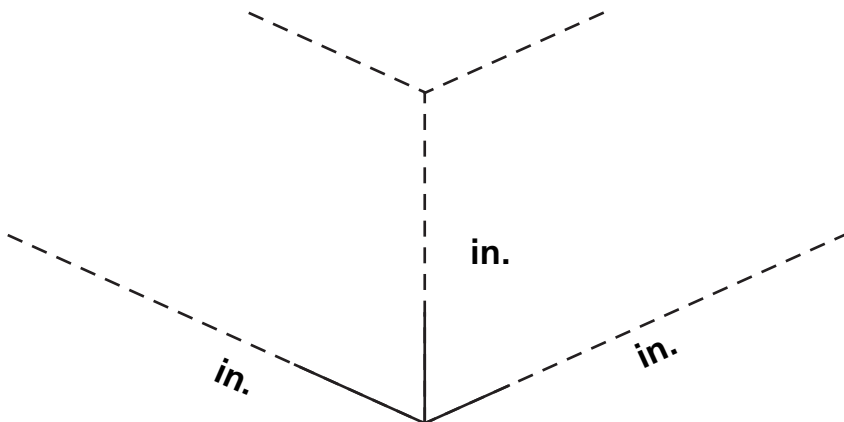
Finding Volumes of Three-Dimensional Figures

Selby built a rectangular prism out of twenty-four inch cubes. What might be the dimensions of the prism? Fill in different dimensions for each picture.

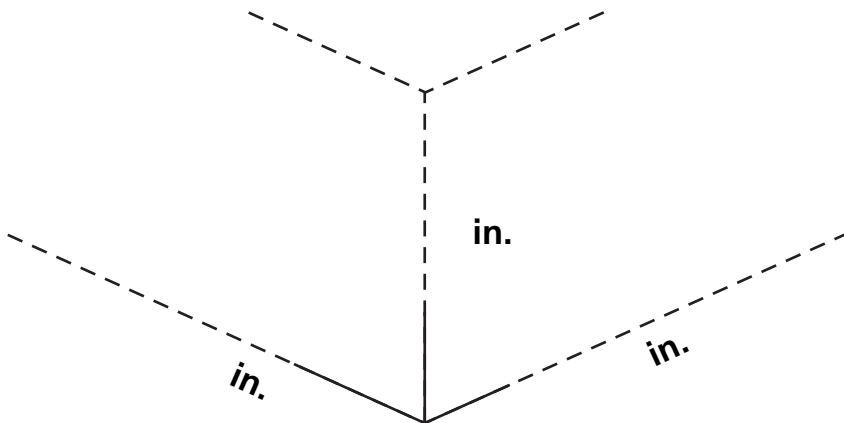
1



2

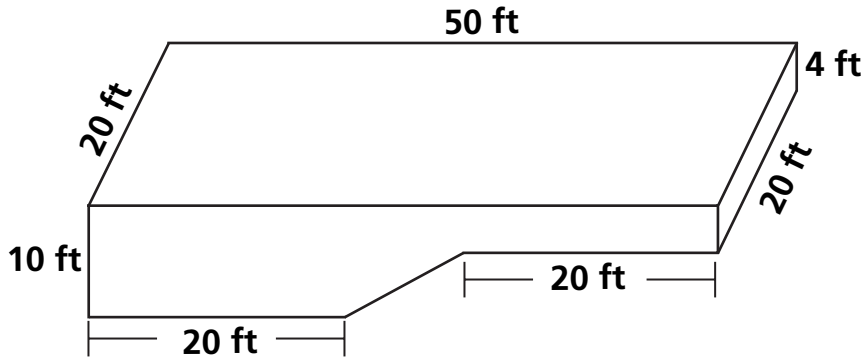


3



More Volumes of Three-Dimensional Figures

1 What is the volume of the pool shown here?



Hint: You haven't been taught how to solve this problem, so you will have to invent a method of your own.

Here are three ideas. You'll have to decide whether they are useful or not.

- Imagine freezing the water of the pool into a block of ice. Try to picture cutting the ice into three prisms.
- For one piece of ice, try to picture combining two of those pieces to make one rectangular prism. What would the volume of that prism be?
- What is a reasonable *estimate* of the volume? What must it be more than? What must it be less than?

_____ cubic feet