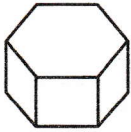


Exploring Solid Figures

Name each solid. Then write the number of vertices (V), edges (E), and faces (F).

1.

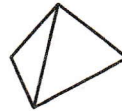


V _____

E _____

F _____

2.

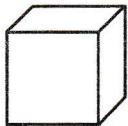


V _____

E _____

F _____

3.

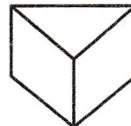


V _____

E _____

F _____

4.



V _____

E _____

F _____

Name the shapes needed and the number of each you would use to build the solid.

5. cylinder

6. square pyramid

7. rectangular prism

Solve.

8. Shawn has four congruent triangles. What solid figure can he make?

9. Add the number of faces and vertices in each figure in Exercises 1-4. Compare this sum to the number of edges. What do you notice?

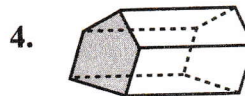
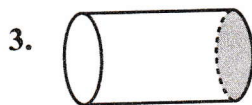
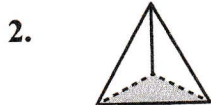
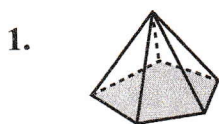
10. Janna has four congruent triangles and a square. What solid figure can she make?

LOGICAL REASONING

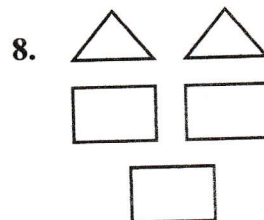
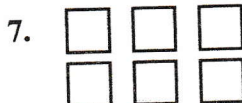
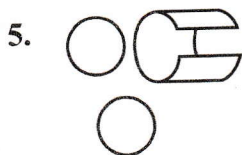
11. Kasa, Lola, and Leroy live in Kentucky, Iowa, and Louisiana. No one lives in a state that begins with the same letter as the person's name. Lola and the person from Iowa went to the same university. Where does each person live?

Three-Dimensional Figures

Name each figure.



The faces, or surfaces, of some three-dimensional figures are shown. Name the figure. Is each a polyhedron? Write *yes* or *no*.



Complete the table.

| | Polyhedron | Number of Faces | Number of Vertices | Number of Edges |
|-----|--------------------|-----------------|--------------------|-----------------|
| 9. | pentagonal prism | | | |
| 10. | pentagonal pyramid | | | |
| 11. | octagonal prism | | | |
| 12. | octagonal pyramid | | | |

VISUAL THINKING

Imagine a cube formed by folding the pattern shown.

13. Which faces would be opposite each other?
Write the pairs of numbers of these faces.

