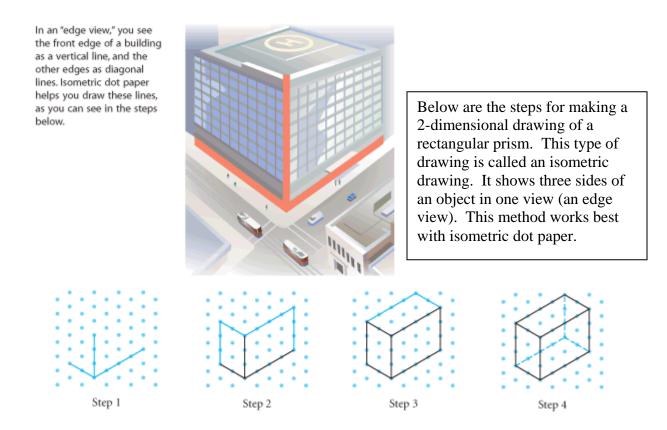
## Lesson 1.8: Space Geometry

In this lesson you will:

- learn the mathematical definition of space
- learn the names of common 3-dimensional objects and how to draw them
- solve problems that require you to visualize objects in space

\*Add "space" to your dictionary.



The three-dimensional objects you will study include the 6 types of geometric solids shown below.



Cone





Pyramid





Hemisphere

## Investigation 1.8: "Space Geometry"

Work with your group to determine whether each statement is true or false. Make a sketch with an example or counterexample.

- 1. For any two points, there is exactly one line that can be drawn through them.
- 2. For any line and a point not on the line, there is exactly one plane that can contain them.
- 3. For any two lines, there is exactly one plane that contains them.
- 4. If two coplanar lines are both perpendicular to a third line in the same plane, then the two lines are parallel.
- 5. If two planes do not intersect, then they are parallel.
- 6. If two lines do not intersect, then they are parallel.
- 7. If a line is perpendicular to two lines in a plane, and the line is not contained in the plane, then the line is perpendicular to the plane.

⇒ASSIGNMENT: \_\_\_\_\_