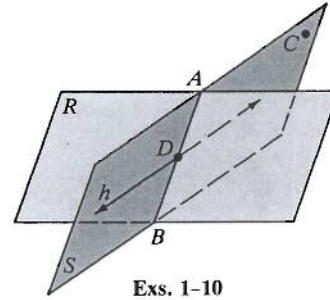


Written Exercises

Classify each statement as true or false.

- A
- \vec{AB} is in plane R . True
 - S contains \vec{AB} . True
 - Plane R intersects plane S in \vec{AB} . True
 - Point C is in R and S . False
 - R and S contain D . True
 - D is on line h . True
 - h is in S . True
 - h is in R . False
 - A , B , and C are collinear. False
 - A , B , C , and D are coplanar. True



Exs. 1-10

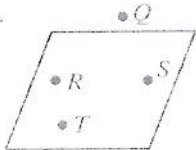
- Make a sketch showing four coplanar points, no three of which are collinear.
 - Make a sketch showing four points that are not coplanar.

Additional Answers Written Exercises

11. a.



b.

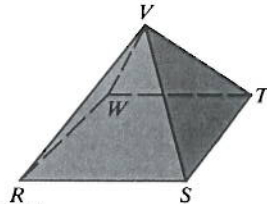


Lesson Notes

Many of the proofs throughout the student text are accompanied by three-dimensional drawings. In order for the students to understand the proof, they must be able to interpret the pictorial information. In some instances, they may have to sketch their own diagrams. It is not uncommon for beginning geometry students to experience difficulty in visualizing and drawing three-dimensional figures. To give students practice and confidence, Written Exercise 19 offers an introductory step-by-step approach. Opportunities for students to practice drawing in space can be found in later sections of the book.

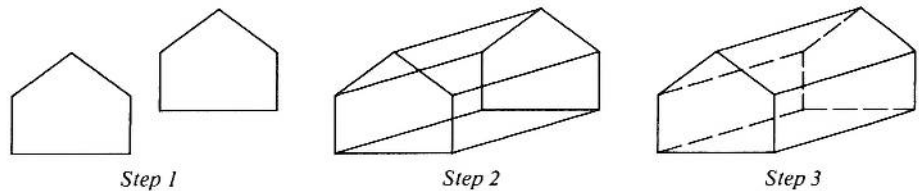
A plane can be named by three noncollinear points it contains. In Chapter 10 you will study *pyramids* like the one shown at the right below.

- Name five planes that contain sides of the pyramid shown. VWR , VRS , VST , VTW , $RSTW$
- Of the five planes containing sides of the pyramid, are there any that do not intersect? No
- Name three lines that intersect at point R . \vec{VR} , \vec{WR} , \vec{SR}
- Name two planes that intersect in \vec{ST} . $WRST$, VST
- Name three planes that intersect at S . VRS , VST , and $RSTW$
- Name a line and a plane that intersect in a point.
- Name a line and a plane whose intersection is the line.
Answers may vary; for example \vec{VT} and $RWST$
Answers may vary; for example \vec{VR} and VRW



Exs. 12-18

- To practice drawing figures in space, follow the three steps below to draw a diagram of a barn. (As you gain more practice in drawing figures in space, you will probably be able to go directly from Step 1 to Step 3.)



4 / Chapter 1

