

LESSON
2.4**Practice B**

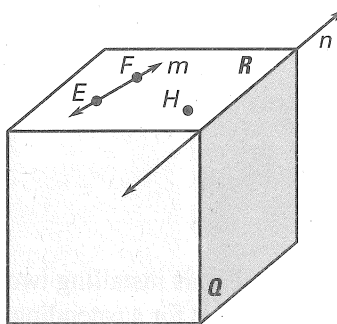
For use with pages 96–102

Draw a sketch to illustrate each postulate.

1. If two lines intersect, then their intersection is exactly one point.
2. If two points lie in a plane, then the line containing them lies in the plane.
3. If two planes intersect, then their intersection is a line.

Use the diagram to state and write out the postulate that verifies the truth of the statement.

4. The points E , F , and H lie in a plane (labeled R).
5. The points E and F lie on a line (labeled m).
6. The planes Q and R intersect in a line (labeled n).
7. The points E and F lie in a plane R .
Therefore, line m lies in plane R .



In Exercises 8–11, think of the intersection of the ceiling and the front wall of your classroom as line k . Think of the center of the floor as point A and the center of the ceiling as point B .

8. Is there more than one line that contains both points A and B ?
9. Is there more than one plane that contains both points A and B ?
10. Is there a plane that contains line k and point A ?
11. Is there a plane that contains points A , B , and a point on the front wall?

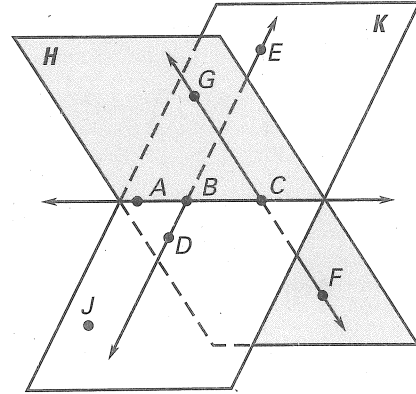
LESSON
2.4

Practice B *continued*
For use with pages 96–102

LESSON 2.4

In Exercises 12–19, use the diagram to determine if the statement is true or false.

12. Points $A, B, D,$ and J are coplanar.
13. $\angle EBA$ is a right angle.
14. Points $E, G,$ and A are collinear.
15. $\overrightarrow{FG} \perp \text{plane } H$
16. $\angle ABD$ and $\angle EBC$ are vertical angles.
17. Planes H and K intersect at \overleftrightarrow{AB} .
18. \overrightarrow{FG} and \overrightarrow{DE} intersect.
19. $\angle GCA$ and $\angle CBD$ are congruent angles.



20. **Neighborhood Map** A friend e-mailed you the following statements about a neighborhood. Use the statements to complete parts (a)–(e).

Building B is due south of Building A.

Buildings A and B are on Street 1.

Building C is due east of Building B.

Buildings B and C are on Street 2.

Building D is southeast of Building B.

Buildings B and D are on Street 3.

Building E is due west of Building C.

$\angle DBE$ formed by Streets 2 and 3 is acute.

- a. Draw a diagram of the neighborhood.
- b. Where do Streets 1 and 2 intersect?
- c. Classify the angle formed by Streets 1 and 2.
- d. What street is building E on?
- e. Is building E between buildings B and C? *Explain.*