

Practice B

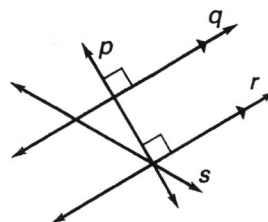
For use with pages 107–113

Complete the sentence.

- Two lines are parallel lines if they lie in the same plane and do not ?.
- Two lines are perpendicular lines if they intersect to form a ? angle.
- Two lines are skew lines if they do not lie in the same ? and do not intersect.
- Two planes are ? planes if they do not intersect.
- A line perpendicular to a plane is a line that intersects a plane in a point, and that is perpendicular to every ? in the plane that intersects it.

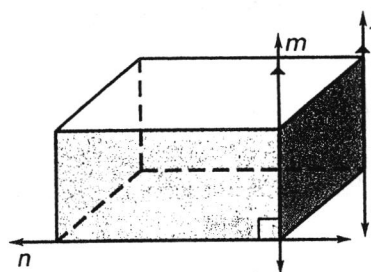
Use the diagram at the right. Determine whether the lines are **parallel**, **perpendicular**, or **neither**.

- | | |
|----------------|----------------|
| 6. p and q | 7. q and s |
| 8. r and q | 9. s and r |



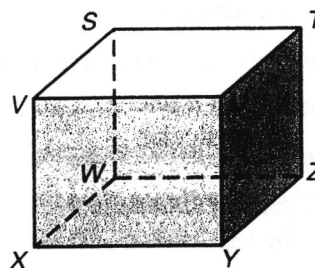
Use the diagram at the right.

- Name a pair of skew lines.
- Name a pair of parallel lines.
- Name a pair of perpendicular lines.



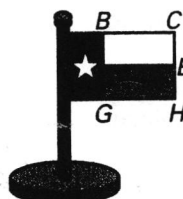
Consider each segment in the diagram at the right as part of a line. Complete the statement.

- \overleftrightarrow{WZ} and \overleftrightarrow{XY} appear to be ?.
- \overleftrightarrow{XV} and \overleftrightarrow{VU} are ?.
- \overleftrightarrow{WX} and \overleftrightarrow{TZ} are ?.
- \overleftrightarrow{XV} is ? to plane STU .
- Plane TUZ is parallel to plane ?.



Use the diagram of the state flag of Texas shown at the right.

- Name four pairs of parallel lines on the flag.
- Name two pairs of perpendicular lines on the flag.
- What parts of the diagram represent a line perpendicular to a plane?



Practice A

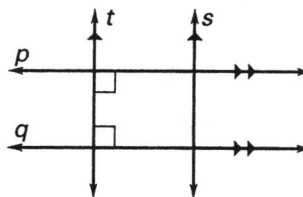
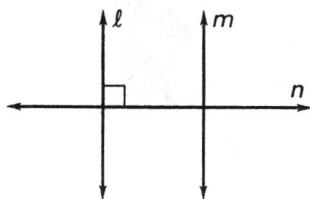
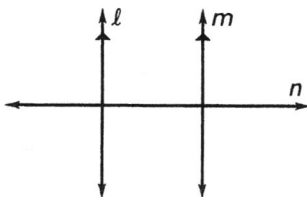
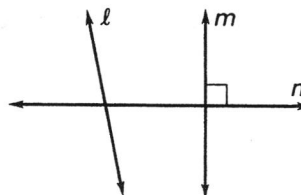
For use with pages 107–113

Match the key word with its definition.

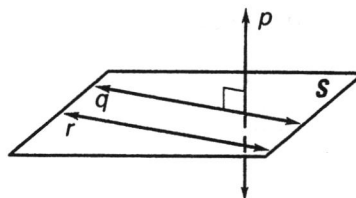
- | | |
|----------------------------------|---|
| 1. parallel lines | A. two lines that do not lie in the same plane and do not intersect |
| 2. perpendicular lines | B. two planes that do not intersect |
| 3. skew lines | C. two lines that lie in the same plane and do not intersect |
| 4. parallel planes | D. two lines that intersect to form a right angle |
| 5. line perpendicular to a plane | E. a line that intersects a plane in a point, and that is perpendicular to every line in the plane that intersects it |

Fill in the blank with \parallel or \perp to make the statement true.

6. Line p ? line t .
 7. Line p ? line q .
 8. Line t ? line s .
 9. Line t ? line q .

**Determine whether the lines are parallel, perpendicular, or neither.**10. ℓ and n 11. ℓ and m 12. ℓ and n **Use the diagram at the right.**

13. Name a pair of perpendicular lines.
 14. Name a pair of lines that appear parallel.
 15. Name a pair of skew lines.
 16. Name a line perpendicular to plane S .
 17. Suppose line ℓ lies in plane S and intersects line p .
 What line must be perpendicular to ℓ ?



The drawing depicts a cricket cage with a rectangular top and bottom and small wooden "bars" for sides. Describe any parts of the cage that suggest the geometric relationships.

18. A pair of parallel planes
 19. A line perpendicular to a plane
 20. A pair of parallel lines

