

# 1-4 Sketching Intersections

**Objective:** Sketch simple figures and their intersections

**Intersection:** the point or line where 2 figures cross

Postulates:

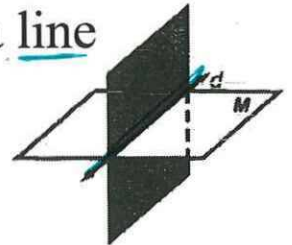
1. If two lines intersect <sup>(cross)</sup>, then they intersect in a point <sup>\*</sup>

they intersect @ P



2. If two planes intersect, then they intersect in a line

line d



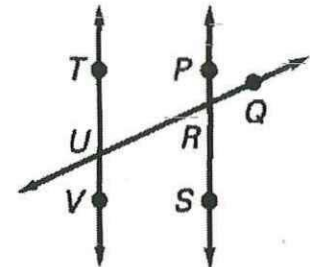
Examples:

1. Name the intersection of  $\overleftrightarrow{PS}$  and  $\overleftrightarrow{QR}$ .

R

2. Name the intersection of  $\overleftrightarrow{TV}$  and  $\overleftrightarrow{QU}$ .

U



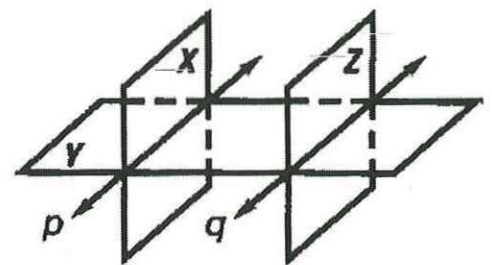
3. Name the intersection of  $\overleftrightarrow{PS}$  and  $\overleftrightarrow{UV}$ .

none

\* do not cross \*

4. Name the intersection of planes X and Y.  
line p

5. Name the intersection of planes Y and Z.  
line q



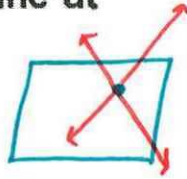
6. Name the intersection of planes Z and X.

none

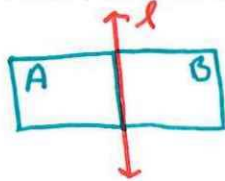
\* do not cross \*

# Sketch the figure described

7. Two lines that intersect a plane at the same point.



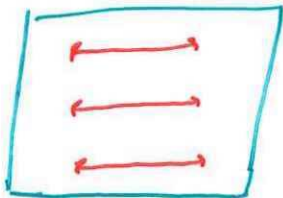
8. Two planes that intersect in a line.



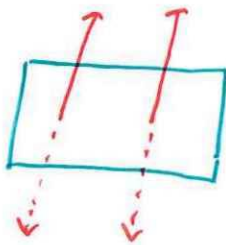
9. Two planes that do not intersect.



10. Sketch 3 lines that lie in a plane



11. Sketch 2 lines that intersect a plane



12. Sketch 3 planes that do not intersect

