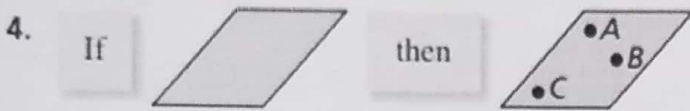
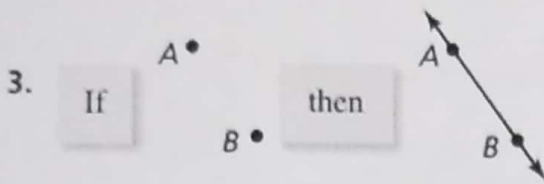
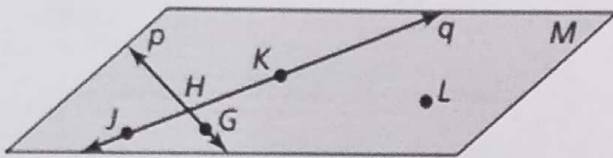


Postulates and Diagrams HW

In Exercises 3 and 4, state the postulate illustrated by the diagram. (See Example 1.)



In Exercises 5–8, use the diagram to write an example of the postulate. (See Example 2.)

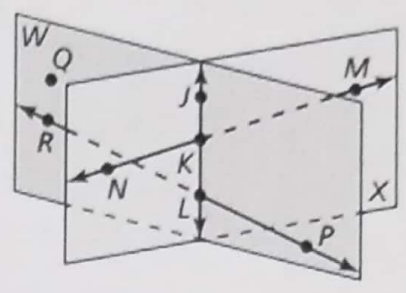


5. Line-Point Postulate (Postulate 2.2)
6. Line Intersection Postulate (Postulate 2.3)
7. Three Point Postulate (Postulate 2.4)
8. Plane-Line Postulate (Postulate 2.6)

In Exercises 9–12, sketch a diagram of the description. (See Example 3.)

9. plane P and line m intersecting plane P at a 90° angle
10. \overline{XY} in plane P , \overline{XY} bisected by point A , and point C not on \overline{XY}
11. \overline{XY} intersecting \overline{WV} at point A , so that $XA = VA$
12. \overline{AB} , \overline{CD} , and \overline{EF} are all in plane P , and point X is the midpoint of all three segments.

In Exercises 13–20, use the diagram to determine whether you can assume the statement. (See Example 4.)



13. Planes W and X intersect at \overline{KL} .
14. Points $K, L, M,$ and N are coplanar.
15. Points $Q, J,$ and M are collinear.
16. \overline{MN} and \overline{RP} intersect.
17. \overline{JK} lies in plane X .
18. $\angle PLK$ is a right angle.
19. $\angle NKL$ and $\angle JKM$ are vertical angles.
20. $\angle NKJ$ and $\angle JKM$ are supplementary angles.