Geometry
Worksheet- Points, Lines & Planes

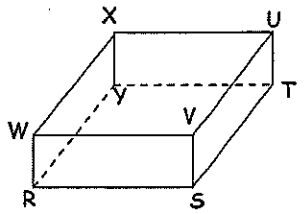
Name_____
Date_____Period____

Refer to the figure at the right to answer each question.

1. Name a point not coplanar with R, S, and T.

2. Name three lines that contain S.

3. Name the intersection of planes RWX and UTY.

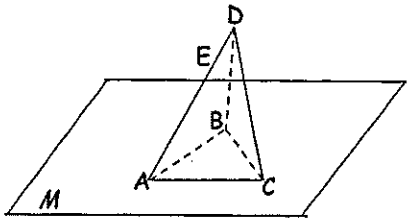


Refer to the figure at the right to answer each question.

4. Are points A, E, and D collinear? Explain

5. Are points A, B, C, and D coplanar? Explain.

6. How many planes appear in this figure? Name them.



7. Draw and label a figure showing lines *a* and *b* intersecting at T with line *a* in plane *Q*, but line *b* not in *Q*.

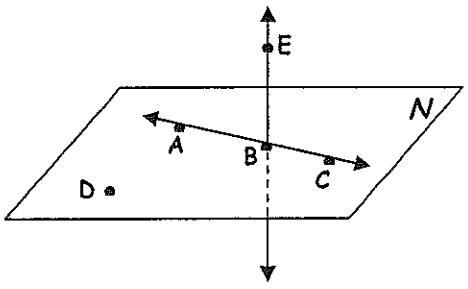
In the figure at the right, A, B, and C are collinear. Points A, B, C, and D are in plane *N*. Use the postulates you have learned to determine if each statement is true or false.

8. A, B, and E lie in plane *N*.

9. $\overline{BC}$ does not lie in plane *N*.

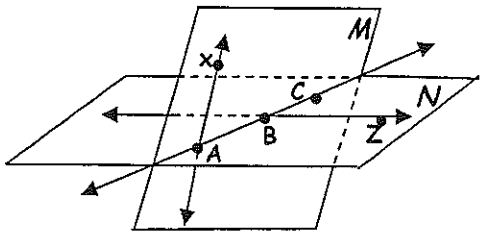
10. A, B, C, and E are coplanar.

11. A, B, and D are collinear.



In the figure at the right, A, B, and C are collinear. Points A and X lie in plane *M*. Points B and Z lie in plane *N*. Determine whether each statement is true or false.

12. B lies in plane *M*.
13. A, B, and C lie in plane *M*.
14. A, B, X, and Z are coplanar.
15. $\overline{BZ}$ lies in plane *N*.



State the number of lines that can be drawn containing each set of points taken two at a time. Draw a figure for each.

16. three collinear points	17. three noncollinear points	18. four points, no three of which are collinear.

State the number of planes that can be drawn that contain the given set of points.

19. three noncollinear points	20. a line and a point not on the line.

Match the figures below to the following descriptions.

_____21. Planes *A* and *B* intersect, planes *A* and *C* intersect, but planes *B* and *C* do not intersect.

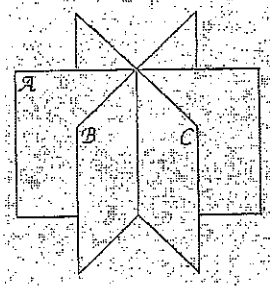
_____22. Line t lies in planes *A*, *B*, and *C*.

_____23. Planes *A* and *B* intersect each other. They both intersect plane *C*.

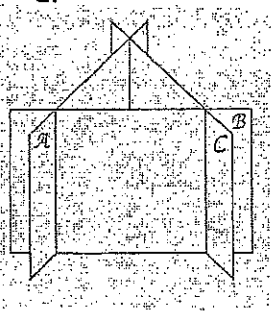
_____24. The intersection of planes *A*, *B*, and *C* is a point.

_____25. Plane *A* does not intersect planes *B* or *C* and plane *B* does not intersect plane *C*.

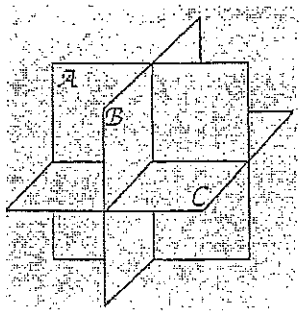
D.



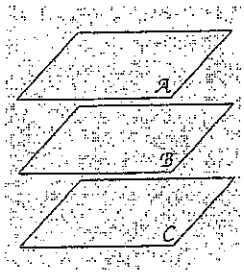
E.



F.



G.



H.