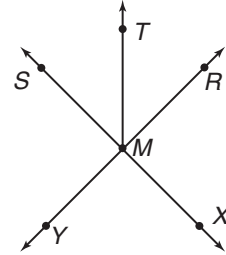


**Skills Practice****Points, Lines, and Planes**

Use the figure at the right to name examples of each term.

- four points
- two lines
- four segments
- one ray whose endpoint is  $M$
- three collinear points
- one point that is *not* on  $\overline{YR}$
- a segment with points  $T$  and  $M$  as its endpoints
- a line that does not contain  $R$
- a line containing  $M$
- a segment that lies on  $\overline{YR}$



Determine whether each model suggests a point, a line, a ray, a segment, or a plane.

- |                                  |   |
|----------------------------------|---|
| 11. a toothpick                  | 12. a floor                                     |
| 13. the tip of a pin             | 14. the surface of the water in a swimming pool |
| 15. a beam of light from a laser | 16. fence pole                                  |

Draw and label a figure for each situation described.

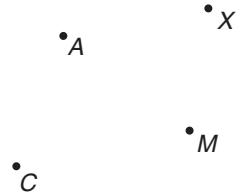
- |   |   |
|---|---|
| 17. point $K$ lies on $\overline{RT}$   | 18. plane $\mathcal{H}$ contains line $a$   |
| 19. $\overline{AB}$ lies in plane $\mathcal{M}$ containing point $R$ not on $\overline{AB}$ | 20. $\overline{AX}$ and $\overline{AY}$ such that point $A$ is the only point common to both rays |

## Skills Practice

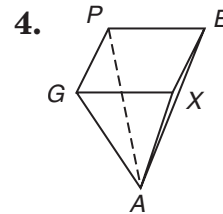
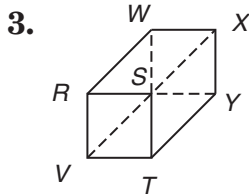
### Postulates

Refer to the figure at the right.

1. Name all of the different lines that can be drawn through the set of points.
2. Name the intersection of  $\overleftrightarrow{AX}$  and  $\overleftrightarrow{AM}$ .

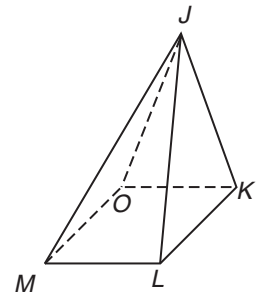


Name all of the planes that are represented in each figure.



Refer to the figure at the right.

5. Name the intersection of plane  $JLM$  and plane  $JKL$ .
6. Name the intersection of plane  $JKO$  and plane  $JOM$ .
7. Name two planes that intersect in  $\overleftrightarrow{ML}$ .
8. Name two planes that intersect in  $\overleftrightarrow{JM}$ .



Determine whether each statement is true or false. If a statement is false, explain why.

9. If you have two points, then there is only one line that contains both points.
10. The intersection of two distinct lines is two points.
11. If you have three noncollinear points, then you have two different planes.
12. A line is the intersection of two distinct planes.
13. One point can be the only intersection of two planes.
14. Three planes can intersect in one line.