Geometry 1-1 Points, Lines, Planes

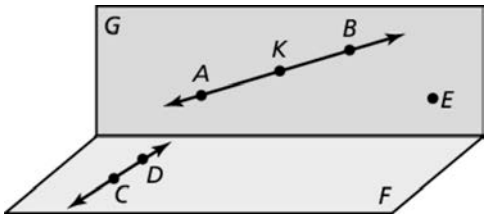
Name _____ Date _____

In Exercises 1–3, use the diagram.

1. Name two points.

2. Name two lines.

3. Name the plane that contains point *A*, *B*, and *E*.



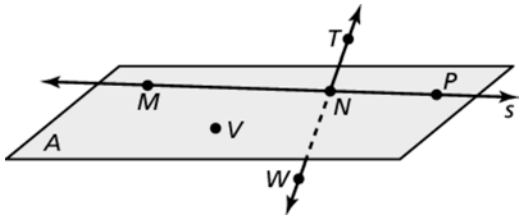
In Exercises 4–7, use the diagram.

4. Give one other name for $\overleftrightarrow{MN}$.

5. Name three points that are collinear.

6. Name three points that are coplanar.

7. Name a point that is *not* coplanar with points *N*, *P*, and *T*.



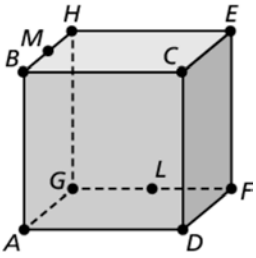
In Exercises 8–10, sketch the figure described.

8. plane *A* and line *c* intersecting at all points on line *c*

9. $\overleftrightarrow{GM}$ and $\overleftrightarrow{GH}$

10. line $\overleftrightarrow{CD}$ and plane *X* not intersecting

In Exercises 11–14, use the diagram.



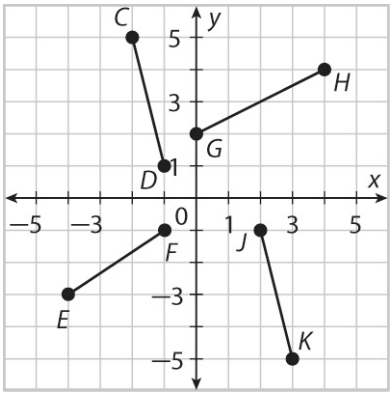
11. Name a point that is coplanar with points *A*, *D*, and *G*.

12. Name the intersection of plane *HEG* and plane *DFE*.

13. Name a point that is collinear with *BH*.

14. Name a point that is *not* coplanar with points *C*, *E*, and *M*.

Use the distance formula to determine whether each pair of segments have the same length.



16. $\overline{CD}$ and $\overline{EF}$

17. $\overline{GH}$ and $\overline{JK}$

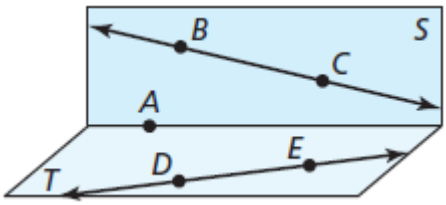
Geometry 1-1 Points, Lines, Planes

Use the distance formula to find length between the given points.

18. $(-2, -8), (-4, -5)$

19. $(3, -8), (-4, -1)$

In Exercises 20 – 23 , use the diagram.



20. Name four points

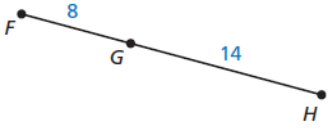
21. Name two lines.

22. Name the plane that contains points *A*, *B*, and *C*.

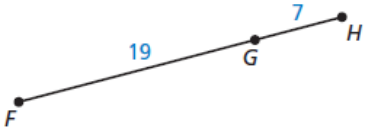
23. Name the plane that contains points *A*, *D*, and *E*.

In Exercises 24–27, find *FH*.

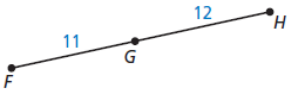
24.



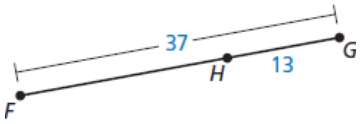
25.



26.



27.



Geometry 1-1 Points, Lines, Planes

Point S is between points R and T on RT. Use the information to write an equation in terms of x. Then solve the equation and find RS, ST, and RT.

28. . $RS = 2x + 10$

$ST = x - 4$

$RT = 21$

29. $RS = 3x - 16$

$ST = 4x - 8$

$RT = 60$

30. $RS = 2x - 8$

$ST = 11$

$RT = x + 10$

31. $RS = 4x - 9$

$ST = 19$

$RT = 8x - 14$