Practice 1-3

Points, Lines, and Planes

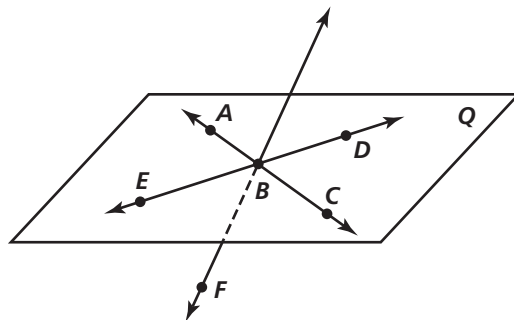**Refer to the diagram at the right for Exercises 1–15.**

1. Name $\overleftrightarrow{AB}$ in another way.

2. Give two other names for plane Q.

3. Why is EBD not an acceptable name for plane Q?

Are the following sets of points collinear?

4. $\overleftrightarrow{AB}$ and C

5. B and F

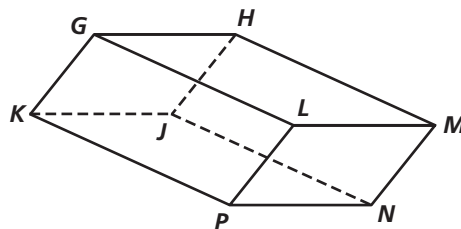6. $\overleftrightarrow{EB}$ and A

7. F and plane Q

Are the following sets of points coplanar?

8. E, B, and F

9. $\overleftrightarrow{DB}$ and $\overrightarrow{FC}$

10. $\overleftrightarrow{AC}$ and $\overleftrightarrow{ED}$

11. $\overleftrightarrow{AE}$ and $\overleftrightarrow{DC}$

12. F, A, B, and C

13. F, A, B, and D

14. plane Q and $\overleftrightarrow{EC}$

15. $\overleftrightarrow{FB}$ and $\overleftrightarrow{BD}$

Find the intersection of the following lines and planes in the figure at the right.

16. $\overleftrightarrow{GK}$ and $\overleftrightarrow{LG}$

17. planes GLM and LPN

18. planes $GHPN$ and KJP

19. planes HJN and GKL

20. $\overleftrightarrow{KP}$ and plane KJN

21. $\overleftrightarrow{KM}$ and plane GHL

Refer to the diagram at the right.

22. Name plane P in another way.

23. Name plane Q in another way.

24. What is the intersection of planes P and Q?

25. Are A and C collinear?

26. Are D, A, B, and C coplanar?

27. Are D and C collinear?

28. What is the intersection of $\overleftrightarrow{AB}$ and $\overleftrightarrow{DC}$?

29. Are planes P and Q coplanar?

30. Are $\overleftrightarrow{AB}$ and plane Q coplanar?

31. Are B and C collinear?