

# Practice 1-3

Points, Lines, and Planes

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

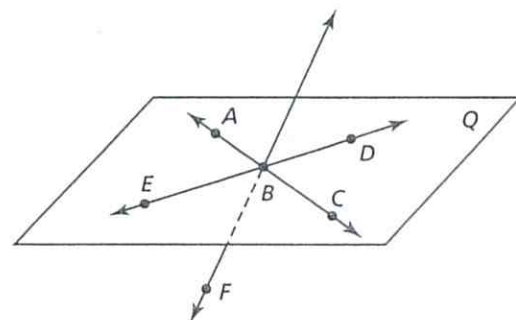
1. Name  $\overleftrightarrow{AB}$  in another way.
2. Give two other names for plane  $Q$ .
3. Why is  $EBD$  not an acceptable name for plane  $Q$ ?

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  $Q$

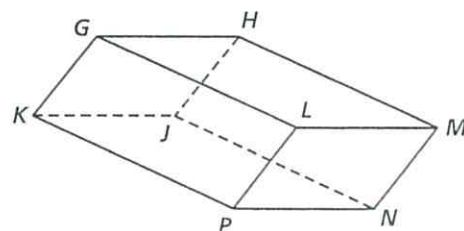
Are the following sets of points coplanar?

8.  $E$ ,  $B$ , and  $F$
9.  $\overleftrightarrow{DB}$  and  $\overleftrightarrow{FC}$
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?

