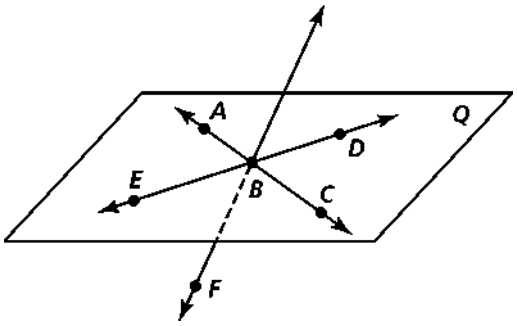
Name_____ Class_____ Date_____

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*?

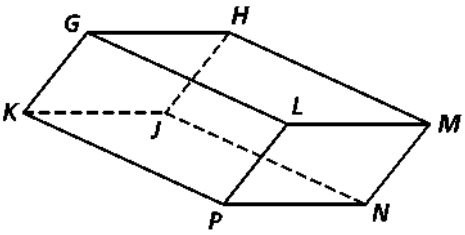
Are the following sets of points collinear?

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?

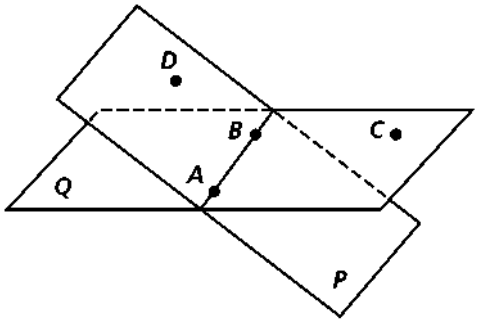
8. *E, B,* and *F*
9. $\overleftrightarrow{DB}$ and $\overleftrightarrow{FC}$
10. $\overleftrightarrow{AC}$ and $\overleftrightarrow{ED}$
11. $\overleftrightarrow{AE}$ and $\overleftrightarrow{DC}$
12. *F, A, B,* and *C*
13. *F, A, B,* and *D*
14. plane *Q* and $\overleftrightarrow{EC}$
15. $\overleftrightarrow{FB}$ 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?

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