1 2 Practice

Form K

Points, Lines, and Planes

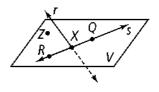
Use the figure at the right for Exercises 1–4. Note that line r pierces the plane at X. It is not coplanar with V.

1. What are two other ways to name \overrightarrow{QX} ?

To start, remember you can name a line by any

point(s) on the line or by ? lowercase letter(s).

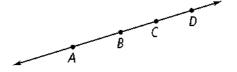
Two other ways to name \overrightarrow{QX} are line ? and ?.



- **2.** What are two other ways to name plane V?
- **3.** Name three collinear points.
- 4. Name four coplanar points.

Use the figure at the right for Exercises 5–7.

5. Name six segments in the figure. To start, remember that a segment is part of a line that consists of ? endpoints.



Six segments are AB, BC, $\frac{?}{?}$, $\frac{?}{?}$, $\frac{?}{?}$, and $\frac{?}{?}$.

- **6.** Name the rays in the figure.
- **7. a.** Name the pairs of opposite rays with endpoint *C*.
 - **b.** Name another pair of opposite rays.

For Exercises 8–12, determine whether each statement is *always*, *sometimes*, or *never* true.

- **8.** Plane ABC and plane DEF are the same plane.
- **9.** \overrightarrow{DE} and \overrightarrow{DF} are the same line.
- **10.** Plane XYZ does not contain point Z.
- 11. All the points of a line are coplanar.
- **12.** Two rays that share an endpoint form a line.

Practice (continued)

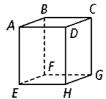
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Use the figure at the right for Exercises 13–21.

Name the intersection of each pair of planes. To start, identify the points that both planes contain.

13. planes *DCG* and *EFG*



14. planes *EFG* and *ADH*

15. planes BCG and ABF

Name two planes that intersect in the given line. To start, identify the planes that contain the given line.

16. *CD*

17. *DH*

18. *EF*

Copy the figure. Shade the plane that contains the given points.

19. *A*, *B*, *C*

20. *C, D, H*

21. *E*, *H*, *B*