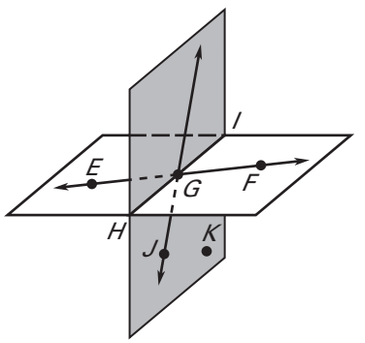
Name _____ Date _____

LESSON 1.1

Practice

For use with pages 2–8

Use the diagram to decide whether the given statement is *true* or *false*.



1. Points H, I, and G are collinear.

2. Points H, I, and J are coplanar.

3. $\overrightarrow{EG}$ and $\overrightarrow{FG}$ are opposite rays.

4. All points on $\overrightarrow{GI}$ and $\overrightarrow{GF}$ are coplanar.

5. The intersection of $\overleftrightarrow{EF}$ and plane JKH is $\overleftrightarrow{HI}$.

6. The intersection of $\overleftrightarrow{EF}$, $\overleftrightarrow{HI}$, and $\overleftrightarrow{JG}$ is point G.

7. The intersection of plane EGH and plane JGI is point G.

8. The intersection of plane EFI and plane JKG is $\overleftrightarrow{HG}$.

Sketch the figure described.

9. Two rays that do not intersect

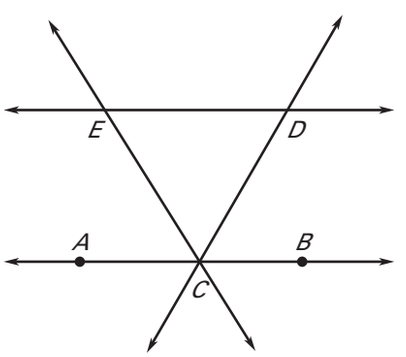
10. Three planes that intersect in one line

11. Three lines that intersect in three points

12. A ray that intersects a plane in one point

In Exercises 13–15, use the diagram.

13. Name 12 different rays.



14. Name 2 pairs of opposite rays.

15. Name 3 lines that intersect at point C.

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LESSON 1.1

Practice *continued*

For use with pages 2–8

16. Draw four noncollinear points A, B, C, and D. Then sketch $\overline{AB}$, $\overrightarrow{BC}$, and $\overleftrightarrow{AD}$.

17. Sketch plane M intersecting plane N. Then sketch plane O so that it intersects plane N, but not plane M.

You are given an equation of a line and a point. Use substitution to determine whether the point is on the line.

18. $y = 5x + 3$; $A(1, 8)$

19. $y = -x + 3$; $A(6, 3)$

20. $y = -3x - 6$; $A(2, 0)$

21. $2x - y = 7$; $A(3, -1)$

22. $x + 6y = 40$; $A(-10, 5)$

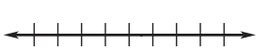
23. $-x - 4y = -14$; $A(-6, 2)$

Graph the inequality on a number line. Tell whether the graph is a *segment*, a *ray* or *rays*, a *point*, or a *line*.

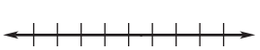
24. $x \rightarrow 2$

25. $2 \mid x \mid 5$

26. $x \mid 0$ and $x \rightarrow 8$



27. $\div x \div \mid 0$



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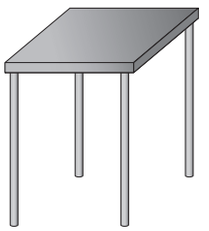
LESSON 1.1 **Practice** *continued*
For use with pages 2–8

28. Counter Stools Two different types of stools are shown below.

a. One stool rocks slightly from side to side on your kitchen floor. Which of the two stools could this possibly be? *Explain* why this might occur.

Three-legged stool

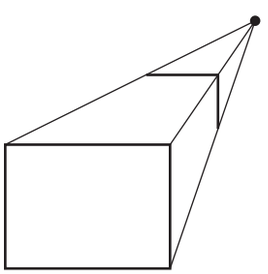


Four-legged stool

b. Suppose that each stool is placed on a flat surface that is slightly sloped. Do you expect either of the stools to rock from side to side? *Explain* why or why not.

29. Perspective Drawings Recall from the text, that a perspective drawing is drawn using vanishing points.

a. Does the drawing at the right represent a perspective drawing? *Explain* why or why not.



b. Using heavy dashed lines, draw the hidden lines of the prism.

c. Redraw the prism so that it uses two vanishing points.