Challenge Practice

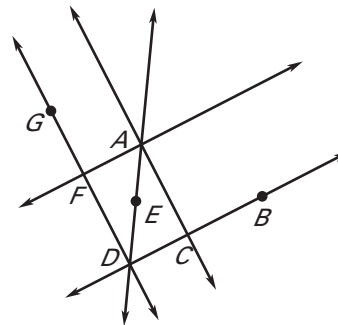**LESSON 1.1**

For use with pages 2–8

1. Name 15 different rays in the diagram at the right. Then name 3 pairs of opposite rays.

2. Draw four noncollinear points A, B, C, and D. Sketch $\overrightarrow{AD}$ and add a point E on $\overrightarrow{AD}$. Sketch $\overrightarrow{EB}$ and add a point F on $\overrightarrow{EB}$. Sketch $\overrightarrow{FC}$ and add a point G on $\overrightarrow{FC}$. Sketch plane AEF.

In Exercises 3–8, use the diagram at the right.

3. Name the intersection of plane YZT and plane XYT.

4. Name the intersection of plane WXT and plane YZT.

5. Are points Z, V, and W collinear? Are they coplanar?

6. Name three planes that intersect at point W.

7. Name three lines that intersect at point Y.

8. Do the planes YXT, WXT, and WVT intersect in one line?
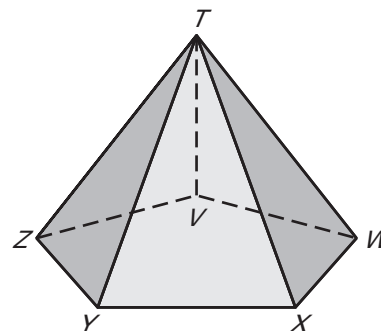
In Exercises 9–12, you are given two equations of lines and a point. Do the lines intersect at the given point? *Explain* **your reasoning.**

9. $y = 5x + 1$
   $y = -5x + 1$
   $A(0, 1)$

10. $y = -2x + 6$
    $y = 3x - 4$
    $A(3, 3)$

11. $y = x + 8$
    $y = -4x - 3$
    $A(-2, 6)$

12. $y = 2x - 5$
    $y = 3x + 1$
    $A(-6, -17)$

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