



Homework 14-1

Points, Lines, and Planes

Another Look!

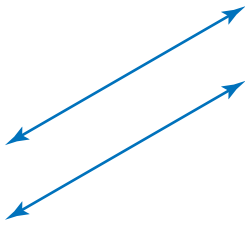
Here are some important geometric terms.



X

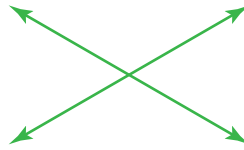
Point

A point is an exact location in space. This is point X.



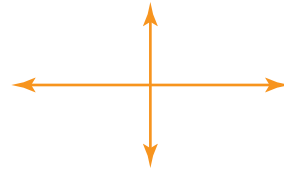
Parallel lines

Parallel lines never intersect.



Intersecting lines

Intersecting lines pass through the same point.



Perpendicular lines

Perpendicular lines form right angles.

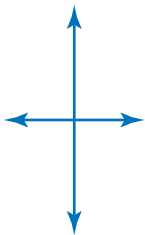


Line

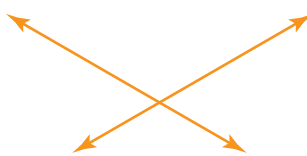
A line is a straight path of points that goes on and on in both directions. This is line AB.

In 1 through 3, use geometric terms to describe what is shown. Be as specific as possible.

1.



2.

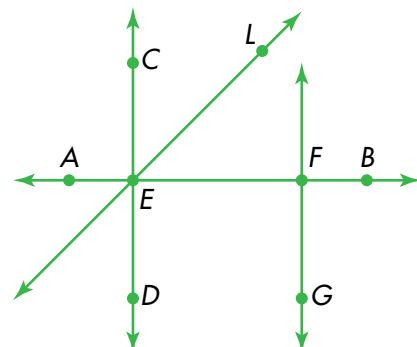


3.



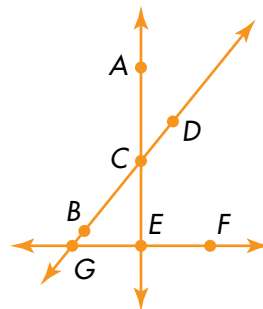
4. Name three different lines.

5. Name a pair of parallel lines.



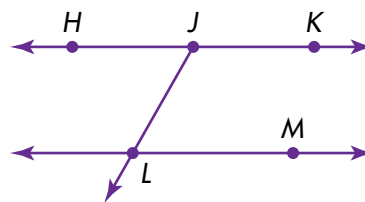
In 6 through 8, use the diagram to the right.

6. Name two lines.
7. Name two lines that are perpendicular.
8. **Draw a Picture** Draw a line HF on the diagram that is parallel to line AE and perpendicular to line GF .



9. Which two lines are parallel?

- ★ A Line HK and line JL C Line HJ and line JK
 B Line HJ and line JL D Line HJ and line LM



10. **Reason** What geometric term describes the relationship between line JL and line LM ?

11. **Draw a Picture** Draw and label parallel lines XY and RS . Then draw and label line TS so that it is perpendicular to both lines XY and RS . Draw point Z on line TS .

12. **Connect** Describe a point. What could you use as a model of a point?

13. **Construct Arguments** Alexandra says that if two lines share a point, then they cannot be parallel. Do you agree? Explain.

14. **Extend Your Thinking** Line AB is parallel to line CD . Line AB is perpendicular to line EF . What is the relationship between line CD and line EF ?