LESSON MAKER PRO

# Geometry Spotters

*Find the parts that build geometric figures.*

**GRADE 4 · 4.MG.4.a**

**4.MG.4.a** "Identify and describe points, lines, line segments, rays, and angles, including endpoints and vertices."

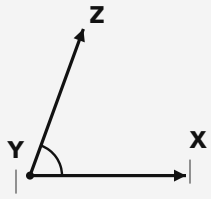
NAME _____ DATE _____

## FIGURE PARTS

A point shows one exact location. A line goes forever in both directions, a line segment has two endpoints, and a ray has one endpoint and goes forever in one direction. An angle is made by two rays that share one endpoint, called a vertex.

### WORKED EXAMPLE

Look at the angle. Identify the vertex and name its two rays.

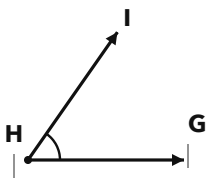



1. Find where the two rays meet.
2. The rays meet at Y, so Y is the vertex.
3. One ray goes from Y through X, and one ray goes from Y through Z.

**Answer: Vertex Y; rays YX and YZ.**

## PRACTICE 6 problems

**1** Look at the angle. Write the vertex and name both rays.



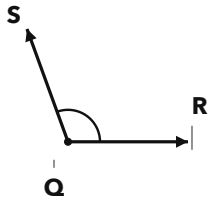

**ANSWER** _____

_____

**2** Line AB is named by points A and B. How many endpoints does line AB have?

**ANSWER** _____

**3** Look at the angle. Which point is the endpoint of both rays?




**ANSWER** _____

**4** Segment CD has endpoints C and D. What are its two endpoints?

**ANSWER** _____

**5** Ray LM starts at L and passes through M. Does ray LM have one endpoint, two endpoints, or no endpoints?

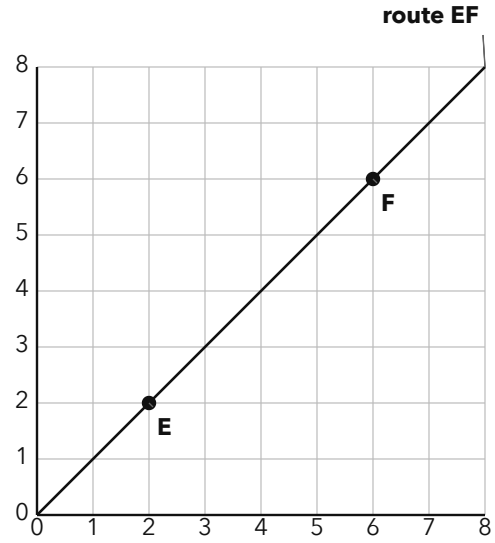
**ANSWER** _____

**6** The symbol N marks one exact location. Is N a point, line, line segment, ray, or angle?

**ANSWER** _____

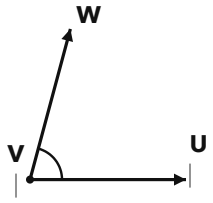
## APPLY IT Show your work

**1** On a robot game map, the straight route through E and F continues past both points in both directions, as shown. What figure is route EF? How many endpoints does it have?




**ANSWER** _____

**2** At a science museum light show, two laser beams start together at V and shine through U and W, as shown. Name the angle and its vertex.




**ANSWER** _____

## CHALLENGE One step up

At point K, ray KJ and ray KP form an angle. Segment JK ends at J and K. Name the angle, its vertex, the two rays, and the two endpoints of the segment.

WORK SPACE AND ANSWER

**ANSWER KEY**

# Geometry Spotters

**GRADE 4 · 4.MG.4.a**

## PART 1 · PRACTICE

| # | PROBLEM | ANSWER |
|---|---|---|
| 1 | Look at the angle. Write the vertex and name both rays. | **Vertex H; rays HG and HI.** |
| 2 | Line AB is named by points A and B. How many endpoints does line AB have? | **0 endpoints** |
| 3 | Look at the angle. Which point is the endpoint of both rays? | **Q** |
| 4 | Segment CD has endpoints C and D. What are its two endpoints? | **C and D** |
| 5 | Ray LM starts at L and passes through M. Does ray LM have one endpoint, two endpoints, or no endpoints? | **one endpoint** |
| 6 | The symbol N marks one exact location. Is N a point, line, line segment, ray, or angle? | **point** |

## PART 2 · APPLY IT

1. **line EF; 0 endpoints** The route continues forever in both directions, so it is a line. A line has no endpoints.
2. **angle UVW; vertex V** The vertex is the shared endpoint of the two rays. Put V in the middle when naming the angle.

## CHALLENGE

**angle JKP; vertex K; rays KJ and KP; segment JK has endpoints J and K.**

Accept angle WVU for angle UVW and angle PKJ for angle JKP. Accept ray names only when the endpoint is written first.