

Geometry Spotters

Find the parts of basic 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 CLUES

A point shows one exact location and is named with a capital letter. A line goes forever in both directions and has no endpoints, a 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 an endpoint, called the vertex.

WORKED EXAMPLE

Ray GH begins at G and passes through H. What is the endpoint?

1. Find where the ray starts.
2. The ray starts at G.

Answer: Endpoint: G

PRACTICE 6 problems

- 1** A single dot is labeled M. What is this geometric figure called?

ANSWER _____

- 2** A straight path has arrows on both ends and goes through points N and O. Name the figure.

ANSWER _____

- 3** Segment QR is shown. How many endpoints does it have? Name them.

ANSWER _____

- 4** A figure begins at H, passes through I, and continues forever in one direction. Name the figure.

ANSWER _____

- 5** Two rays, LK and LM, share endpoint L. What figure do they make? Name its vertex.

ANSWER _____

- 6** Segment CD ends at C and D. Are C and D endpoints or vertices?

ANSWER _____

APPLY IT Show your work

- 1** At a robotics contest, a robot's flashlight path starts at dock D, passes through cone C, and continues forward. What geometric figure models the path? Give the figure's name and endpoint.

WORK SPACE

ANSWER _____

- 2** On a skate park map, two ramps start at the same spot S. One ramp points toward rail R, and the other points toward bowl B. What angle is shown? What is its vertex?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Mia says ray VW and ray WV are the same figure because they use the same two points. Is Mia correct? Explain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A single dot is labeled M. What is this geometric figure called?	point M
2	A straight path has arrows on both ends and goes through points N and O. Name the figure.	line NO
3	Segment QR is shown. How many endpoints does it have? Name them.	2 endpoints: Q and R
4	A figure begins at H, passes through I, and continues forever in one direction. Name the figure.	ray HI
5	Two rays, LK and LM, share endpoint L. What figure do they make? Name its vertex.	angle KLM; vertex L
6	Segment CD ends at C and D. Are C and D endpoints or vertices?	endpoints

PART 2 • APPLY IT

1. **ray DC; endpoint D** The path starts at D and continues in one direction. A ray is named with its endpoint first.
2. **angle RSB; vertex S** The two rays share point S. The shared endpoint is the vertex and belongs in the middle of the angle name.

CHALLENGE

No. Ray VW starts at V, and ray WV starts at W, so they go in opposite directions.

Accept reversed point order for a line and either valid outside-letter order for an angle, such as angle MLK for angle KLM. For a ray, require the endpoint letter first.