

Straight Path Studio

Draw and label geometry figures.

GRADE 4 • 4.MG.4.c

4.MG.4.c "Draw representations of points, line segments, rays, angles, and lines, using a ruler or straightedge."

NAME _____

DATE _____

DRAW IT CLEARLY

A point is one dot. A line has arrows on both ends, a segment has two endpoints, and a ray has one endpoint and one arrow. An angle is made by two rays that share one endpoint, called the vertex. Use the straight edge of this page, or a ruler, to make each straight part.

WORKED EXAMPLE

Draw a line RS and a separate ray TU. T is the ray's endpoint.

1. Mark R and S, then draw a straight line through them.
2. Add an arrow at each end of line RS.
3. Mark T and U away from the line.
4. Draw from T through U, then add one arrow beyond U.

Answer: Line RS has arrows at both ends. Ray TU has endpoint T and one arrow beyond U.

PRACTICE 6 problems

1 Draw point F.

ANSWER _____

2 Draw a line through A and B.

ANSWER _____

3 Draw segment CD.

ANSWER _____

4 Draw ray GH. G is the endpoint, and the ray passes through H.

ANSWER _____

5 Draw angle JKL.

ANSWER _____

6 Draw line MN. Then draw point P not on line MN.

ANSWER _____

APPLY IT Show your work

- 1** On a treasure map, a path begins at X, goes through Y, and continues past Y. Draw the path as a geometric figure.

WORK SPACE

ANSWER _____

- 2** A game designer wants two laser paths to start at L. One path goes through M, and the other goes through N. Draw both rays. What angle did you draw?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Make one picture that includes all these parts. Draw line GH. Away from that line, draw angle JKL with vertex K. Put point M inside angle JKL. Draw segment JM. Do not let segment JM touch line GH.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Draw point F.	Point F.
2	Draw a line through A and B.	Line AB, with arrows at both ends.
3	Draw segment CD.	Segment CD, with endpoints C and D.
4	Draw ray GH. G is the endpoint, and the ray passes through H.	Ray GH, with endpoint G and one arrow beyond H.
5	Draw angle JKL.	Angle JKL, with vertex K.
6	Draw line MN. Then draw point P not on line MN.	Line MN, with point P not on the line.

PART 2 • APPLY IT

1. **Ray XY, with endpoint X and an arrow beyond Y.** The path starts at X and continues in one direction through Y, so it is ray XY.
2. **Rays LM and LN, forming angle MLN with vertex L.** Both rays begin at L, so they form an angle with vertex L. The angle is named MLN.

CHALLENGE

A correct drawing has line GH separate from angle JKL, point M inside angle JKL, and segment JM. The vertex of angle JKL is K.

Accept drawings in any orientation if the labels, endpoints, and arrowheads are correct. Lines need two arrows, rays need one arrow, and the middle letter of an angle name must be its vertex.