

Foundational Objects and Definitions

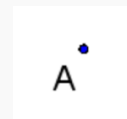
WHAT MAKES A GOOD DEFINITION?

Elements of a good definition:

UNDEFINED TERMS — *accepted without definition — the starting points of geometry*

Why are undefined terms necessary?

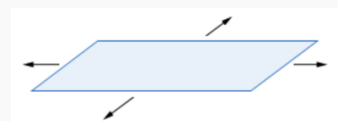
Point (*undefined*)



Line (*undefined*)

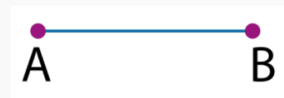


Plane (*undefined*)



DEFINED TERMS — *built from the undefined terms*

Line Segment (*defined*)

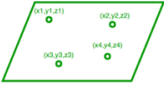
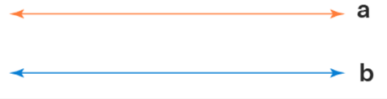
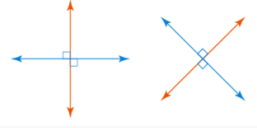


Ray (*defined*)



Collinear Points (*defined*)

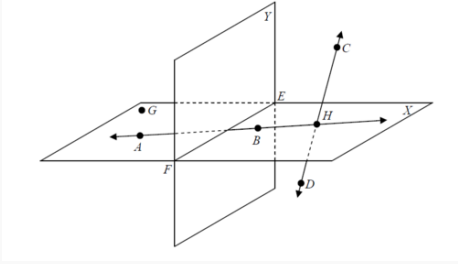


Coplanar Points <i>(defined)</i> 	 Coplanar Points
Parallel Lines <i>(defined)</i> 	
Perpendicular Lines <i>(defined)</i> 	

NOTATION REFERENCE

Object	Symbol	Write the notation for AB:
Line	double-headed arrow above	
Ray	single arrow above (endpoint first)	
Segment	bar above, no arrows	
Length / Distance	no symbol — just the letters	

Example and Practice



Use the diagram to answer the questions below:

- Name a line from the image above, use the correct notation
- Name two rays from the image above, use the correct notation
- Name all the points shown in the image above that are not on plane X.