

Axioms, Postulates & Theorems

Axiom (postulate) - is a basic fact that we accept as true

Theorem – is a statement that needs to be proven

First Postulates

- Postulate 1 –** a line contains at least 2 points, a plane contains at least 3 points not all on one line, space contains 4 points not all in one plane.
- Postulate 2 –** Through any two points there is exactly one line.
- Postulate 3 –** Through any three points not on one line there is exactly one plane.
- Postulate 4 –** If two points lie in a plane, then the line joining them lies in the plane.
- Postulate 5 –** If two planes intersect, their intersection is a line.

Theorem 1.1 - If two lines intersect, they intersect in exactly one point.

Theorem 1.2- If a point lies outside a line, then exactly one plane contains the point and the line.

Theorem 1.3- If 2 lines intersect, exactly one plane contains both lines.

