



Exercise 3A

Question 1:

A theorem is a statement that requires a proof. Whereas, a basic fact which is taken for granted, without proof, is called an axiom.

Example of Theorem: Pythagoras Theorem

Example of axiom: A unique line can be drawn through any two points.

Question 2:

(i) Line segment: The straight path between two points is called a line segment.

(ii) Ray: A line segment when extended indefinitely in one direction is called a ray.

(iii) Intersecting Lines: Two lines meeting at a common point are called intersecting lines, i.e., they have a common point.

(iv) Parallel Lines: Two lines in a plane are said to be parallel, if they have no common point, i.e., they do not meet at all.

(v) Half-line: A ray without its initial point is called a half-line.

(vi) Concurrent lines: Three or more lines are said to be concurrent, if they intersect at the same point.

(vii) Collinear points: Three or more than three points are said to be collinear, if they lie on the same line.

(viii) Plane: A plane is a surface such that every point of the line joining any two points on it, lies on it.

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