

Mathematics

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(Chapter – 5) (Introduction to Euclid’s Geometry)(Exemplar Problems)
(Class – IX)

Exercise 5.1

Write the correct answer in each of the following:

Question 22:

‘Lines are parallel if they do not intersect’ is stated in the form of

- (A) an axiom (B) a definition
(C) a postulate (D) a proof

Answer 22:

(B) a definition

‘Lines are parallel, if they do not intersect’ is the definition of parallel lines.

Euclid summarised these statements as definitions. He began his exposition by listing 23 definitions in Book 1 of the ‘Elements’. A few of them are given below:

- A point is that which has no part.
- A line is breadth less length.
- The ends of a line are points.
- A straight line is a line which lies evenly with the points on itself.
- A surface is that which has length and breadth only.
- *Lines are parallel, if they do not intersect.*
- The edges of a surface are lines.
- A plane surface is a surface which lies evenly with the straight lines on itself.

