

NCERT Mathematics Solutions by Dev Anoop (Bathinda). Ex 5.1, Chapter 5

2(i) Parallel Lines: Two or more lines in a plane which do not intersect each other.

2(ii) Perpendicular Lines: Two lines in a plane which are inclined to each other at 90° or two lines which intersect each other at right angles.

2(iii) Line Segment: Part of a line bounded by two end points.

2(iv) Radius of Circle: Line segment joining centre of circle to any point on the circle or A line segment having one end point on centre of circle and other at any point on the circle.

Yes there are terms which need to be defined first eg. Line, angle, circle, plane etc.

2(v) Square: A rhombus in which one angle is 90° .

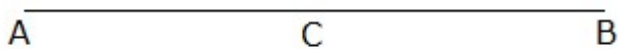
3. Yes, there are several undefined terms.

They are consistent, because they deal with two different situations — (i) says that given two points A and B, there is a point C lying on the line in between them

(ii) says that given A and B, you can take C not lying on the line through A and B.

These 'postulates' do not follow from Euclid's postulates. However, they follow from the axiom that one and only one line passes through two distinct points.

4.



$$AC = BC \quad \text{(given)}$$

$$AC + AC = BC + AC \quad \text{(If equals are added to equals, the wholes are equal)}$$

$$2 AC = AB$$

$$AC = \frac{1}{2} AB$$