



## Exercise 11A

(iii)

$\overline{PR}$  and  $\overline{QS}$  are the two non-intersecting line segments as they do not have any point in common.

Q4

Answer :

COLLINEAR POINTS :

Three or more points in a plane are said to be collinear if they all lie in the same line. This line is called the line of collinearity for the given points.

(i) We can draw only one line passing through three collinear points.

(ii) 3 Line segments are:

$\overline{AB}$

*This is because it has two end points A and B.*

$\overline{BC}$

*This is because it has two end points B and C.*

$\overline{AC}$

*This is because it has two end points A and C.*

Q5

Answer :

(i)

$\overleftrightarrow{PS}$  and  $\overleftrightarrow{AB}$  intersecting at S.

$\overleftrightarrow{CD}$  and  $\overleftrightarrow{RS}$  intersecting at R.

$\overleftrightarrow{PS}$  and  $\overleftrightarrow{CD}$  intersecting at P.

$\overleftrightarrow{AB}$  and  $\overleftrightarrow{RS}$  intersecting at S.

(ii) A, Q, S and B are four collinear points as they all lie on the same line  $\overleftrightarrow{AB}$ .

(iii) A, C and B are non-collinear points as they do not lie on the same line.

(iv)

$\overleftrightarrow{PS}$ ,  $\overleftrightarrow{RS}$  and  $\overleftrightarrow{AB}$  are three concurrent lines passing through the same point S.

(v)

$\overleftrightarrow{PS}$ ,  $\overleftrightarrow{PQ}$  and  $\overleftrightarrow{CD}$  have common point of intersection P.

Q6

Answer :

Taking points A and B, we can draw only one line  $\overleftrightarrow{AB}$ .

Taking points B and C, we can draw only one line  $\overleftrightarrow{BC}$ .

Taking points A and C, we can draw only one line  $\overleftrightarrow{AC}$ .

We can draw only three lines through these non-collinear points A, B and C.

Q7

Answer :

(i) There are 6 line segments. These are:

(i) There are 6 line segments. These are:

$\overline{AB}$  (with end points  $A$  and  $B$ )

$\overline{AC}$  (with end points  $A$  and  $C$ )

$\overline{AD}$  (with end points  $A$  and  $D$ )

$\overline{BC}$  (with end points  $B$  and  $C$ )

$\overline{BD}$  (with end points  $B$  and  $D$ )

$\overline{CD}$  (with end points  $C$  and  $D$ )

(ii) There are 10 line segments. These are:

$\overline{AB}$  (with end points  $A$  and  $B$ )

$\overline{BC}$  (with end points  $B$  and  $C$ )

$\overline{CD}$  (with end points  $C$  and  $D$ )

$\overline{AD}$  (with end points  $A$  and  $D$ )

$\overline{AC}$  (with end points  $A$  and  $C$ )

$\overline{BD}$  (with end points  $B$  and  $D$ )

$\overline{AO}$  (with end points  $A$  and  $O$ )

$\overline{CO}$  (with end points  $C$  and  $O$ )

$\overline{BO}$  (with end points  $B$  and  $O$ )

$\overline{DO}$  (with end points  $D$  and  $O$ )

(iii) There are 6 line segments. They are:

$\overline{AB}$ ,  $\overline{AF}$ ,  $\overline{FB}$ ,

$\overline{EC}$ ,  $\overline{ED}$ ,  $\overline{DC}$

\*\*\*\*\* END \*\*\*\*\*

