

Point, Line, Plane

Exercise-13

Solution 1:

1. seg MN, seg NO and seg LM.
2. seg OT, seg OY, seg TY, seg OZ, line WV, ray OX, ray OV, ray ZX, ray OW

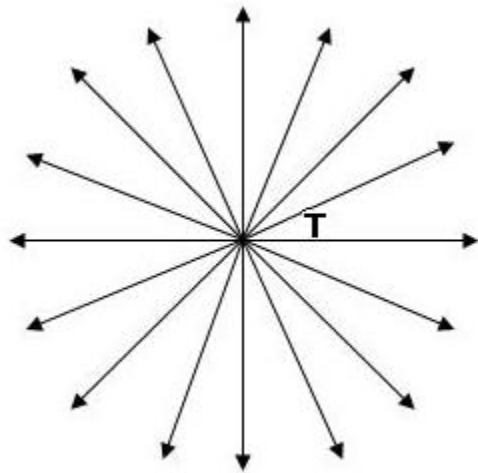
Exercise-14

Solution 1:

Names of the points	Collinear points	Non-collinear points
K, Y, T	✓	
X, Y, T		✓
T, Y, Z		✓
X, Y, Z	✓	

Solution 2:

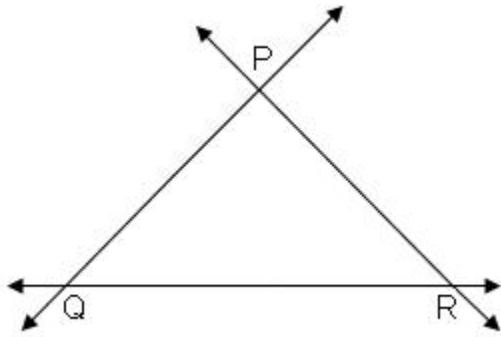
Innumerable lines can be drawn through the point T.



Solution 3:

Line PQ, line QR, line PR are the three lines through the three non-collinear points P, Q and R.

Hence, three lines can be drawn.



Solution 4:

One and only one line can be drawn passing through the two points S and R.



Solution 5:

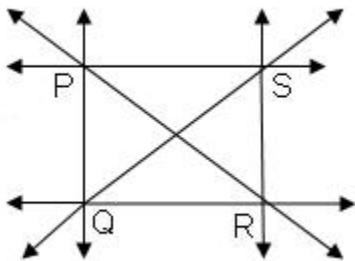
Collinear points – B, M, D ; L, M, K

Non-collinear points – B, K, D ; L, M, D ; K, M, D ; K, L, B ; K, M, B ; K, L, D ; B, L, D ; L, M, B.

Exercise-15

Solution 1:

1. The lines whose point of concurrence is Q are PQ, line SQ and line RQ.
2. Line PS, line SR and line QS are concurrent lines.



Solution 2:

1. Collinear points (B, C, D)
2. Groups of non-collinear points: (A, B, C); (A, B, D); (A, C, D); (A, B, C, D)
3. Concurrent lines: line AB, line AD, line AC. Point of concurrence: Point A.