

1. How many lines can be drawn through a given point?

Solution:-

Through a given point infinite number of lines can be drawn.

2. How many lines can be drawn through two distinct given points?

Solution:-

Only one line can be drawn through two distinct given points.



3. How many lines can be drawn through three collinear points?

Solution:-

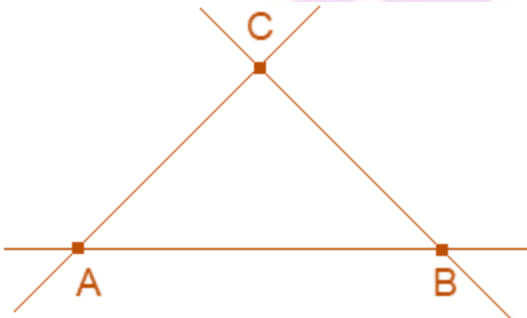
Only one line can be drawn through three collinear points.



4. Mark three non-collinear points A, B and C in your note-book. Draw lines through these points taking two at a time and name these lines. How many such different lines can be drawn?

Solution:-

As per the conditions given in the question,



The lines are AB, AC and BC.

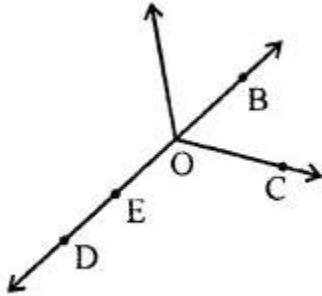
5. Use the figure to name :

(i) Five point

(ii) Aline

(iii) Four rays

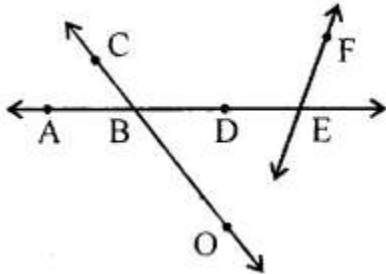
(iv) Five line segments



Solution:-

- (i) Five point = B, C, D, E and O
- (ii) A line = $\overleftrightarrow{DE}, \overleftrightarrow{DO}, \overleftrightarrow{DB}, \overleftrightarrow{EO}$
- (iii) Four rays = $\overrightarrow{DE}, \overrightarrow{DB}, \overrightarrow{OB}, \overrightarrow{OE}, \overrightarrow{EB}$
- (iv) Five line segments = $\overline{DE}, \overline{DO}, \overline{EO}, \overline{OB}, \overline{EB}$

6. Use the figure to name:



- (i) Line containing point E.
- (ii) Line passing through A.
- (iii) Line on which point O lies.
- (iv) Two pairs of intersecting line

Solution:-

- (i) Line containing point E is \overleftrightarrow{AE}
- (ii) Line passing through A \overleftrightarrow{AE}
- (iii) Line on which point O lies, \overleftrightarrow{CO} or \overleftrightarrow{OC}
- (iv) Two pairs of intersecting line $\overleftrightarrow{CO}, \overleftrightarrow{AE}$; $\overleftrightarrow{AE}, \overleftrightarrow{EF}$