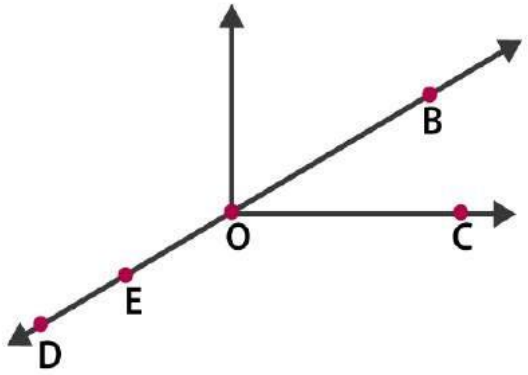
PUBLIC SCHOOL DARBHANGA
SESSION (2020-21)
CLASS-VI
MATHEMATICS
BASIC GEOMETRIC IDEAS

1.Use the figure to name:

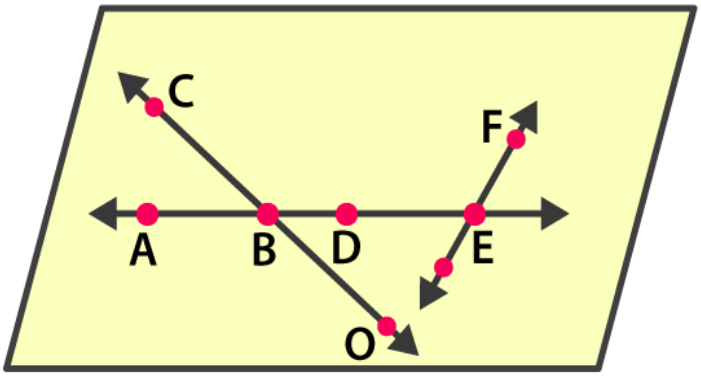
(a) Five points
(b) A line
(c) Four rays
(d) Five line segments



2.Name the line given in all possible (twelve) ways, choosing only two letters at a time from the four given.

3.Use the figure to name:

(a) Line containing point E.
(b) Line passing through A.
(c) Line on which O lies
(d) Two pairs of intersecting lines.



4. How many lines can pass through (a) one given point? (b) two given points?

5. Draw a rough figure and label suitably in each of the following cases:

(a) Point P lies on $\overline{AB}$ **.**

(b) $\overleftrightarrow{XY}$ **and** $\overleftrightarrow{PQ}$ **intersect at M.**

(c) Line l contains E and F but not D.

(d)

$\overleftrightarrow{OP}$ **and** $\overleftrightarrow{OQ}$ **meet at O.**

ANSWER KEY

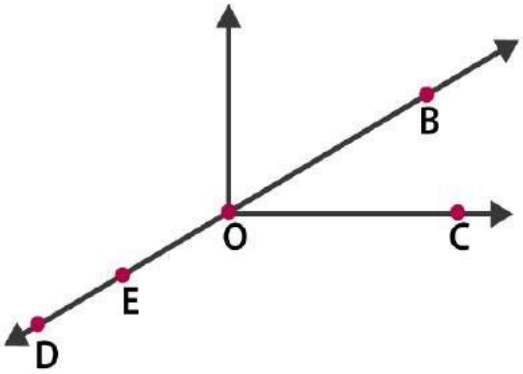
1.Use the figure to name:

(e) Five points

(f) A line

(g) Four rays

(h) Five line segments



Solutions:

(a) The five points are D, E, O, B and C

(b) A line is $\overleftrightarrow{BD}$

(c) Four rays are $\overrightarrow{OD}$, $\overrightarrow{OB}$, $\overrightarrow{OC}$ and $\overrightarrow{OE}$.

(d) Five line segments are $\overline{DE}$, , $\overline{OB}$, $\overline{OC}$ and $\overline{BE}$

2. Name the line given in all possible (twelve) ways, choosing only two letters at a time from the four given.

Solutions:

The lines are $\overleftrightarrow{AB}$, $\overleftrightarrow{AC}$, $\overleftrightarrow{AD}$, $\overleftrightarrow{BA}$, $\overleftrightarrow{BC}$, $\overleftrightarrow{BD}$, $\overleftrightarrow{CA}$, $\overleftrightarrow{CB}$, $\overleftrightarrow{CD}$, $\overleftrightarrow{DA}$, $\overleftrightarrow{DB}$, $\overleftrightarrow{DC}$

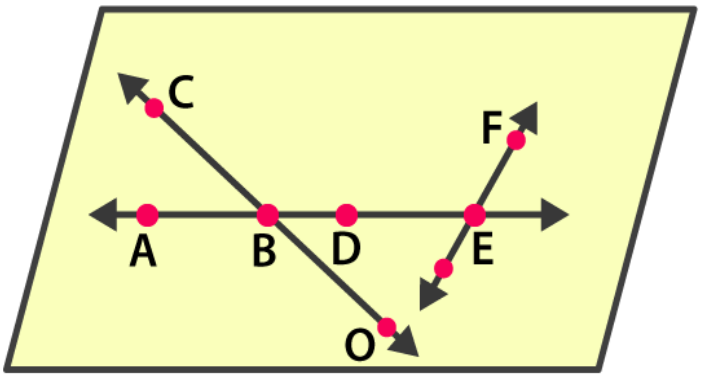
3. Use the figure to name:

(e) Line containing point E.

(f) Line passing through A.

(g) Line on which O lies

(h) Two pairs of intersecting lines.



Solutions:

(a) Line containing point E is $\overleftrightarrow{AE}$

(b) Line passing through A is $\overleftrightarrow{AE}$

(c) Line on which O lies is $\overleftrightarrow{OC}$

(d) Two pairs of intersecting lines are $\overleftrightarrow{CO}$, $\overleftrightarrow{AE}$ and $\overleftrightarrow{AE}$, $\overleftrightarrow{EF}$

4. How many lines can pass through (a) one given point? (b) two given points?

Solutions:

(a) Countless lines can pass through a given point.

(b) Only one line can pass through a two given points.

5. Draw a rough figure and label suitably in each of the following cases:

(a) Point P lies on $\overline{AB}$

(b) $\overleftrightarrow{XY}$ **and** $\overleftrightarrow{PQ}$ **intersect at M.**

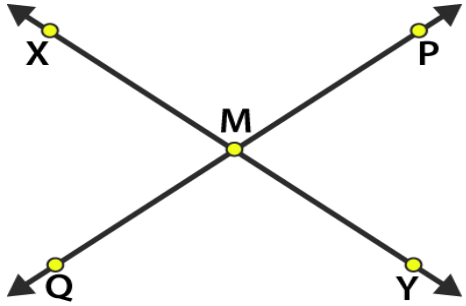
(c) Line l contains E and F but not D.

(d) $\overleftrightarrow{OP}$ **and** $\overleftrightarrow{OQ}$ **meet at O.**

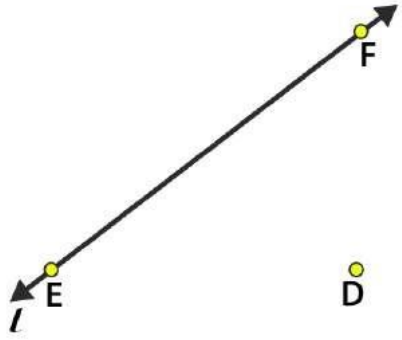
Solutions:

(a)

(b)



(c)



(d)