## NCERT Solutions for Class 6 Maths Chapter 4 Basic

NCERT Solutions for Class 6 Maths Chapter 4 Basic Geometrical Ideas Ex 4.1

Ex 4.1 Class 6 Maths Question 1.
Use the figure to name:
(a) Five points
(b) A line
(c) Four rays
(d) Five line segments

Solution:
(a) Five points are: $O, B, C, E$ and $D$

(b) Name of the line is $\overleftrightarrow{D B}$ or $\overleftrightarrow{B D}$
(c) Four rays are: $\overrightarrow{O C}, \overrightarrow{O B}, \overrightarrow{O E}$ and $\overrightarrow{O D}$
(d) Five line segments are:
$\overline{O E}, \overline{E D}, \overline{O D}, \overline{O B}$ and $\overline{E B}$.

## Ex 4.1 Class 6 Maths Question 2.

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


Solution:
The given lines can be named as follows:

(i) $\overleftrightarrow{\mathrm{AB}}$
(ii) $\overrightarrow{\mathrm{AC}}$
(iii) $\overrightarrow{\mathrm{AD}}$
(iv) $\overleftrightarrow{\mathrm{BC}}$
(v) $\overleftrightarrow{\mathrm{BD}}$
(vi) $\stackrel{\rightharpoonup}{\mathrm{CD}}$
(vii) $\overleftrightarrow{\mathrm{BA}}$
(viii) $\overline{\mathrm{CA}}$
(ix) $\overrightarrow{\mathrm{DA}}$
( $x$ ) $\overrightarrow{\mathrm{CB}}$
(xi) $\overrightarrow{\mathrm{DB}}$
(xii) $\stackrel{\mathrm{DC}}{ }$

Ex 4.1 Class 6 Maths Question 3.
Use the figure to name:
(a) Line containing point $E$.
(b) Line passing through $A$.
(c) Line on which 0 lies.
(d) Two pairs of intersecting lines.


Solution:
(a) $\overleftrightarrow{E F}$
(b) $\overleftrightarrow{A E}$
(c) $\overleftrightarrow{B C}$ or $\overleftrightarrow{B O}$
(d) $\overleftrightarrow{C O}$ or $\overleftrightarrow{A E}$ or $\overleftrightarrow{A E}$ or $\overleftrightarrow{E F}$

Ex 4.1 Class 6 Maths Question 4.
How many lines can pass through
(a) one given point?
(b) two given points?

Solution:
(a) Infinitely many lines can pass through a given points.
(b) Only one line can pass through two given points.

Ex 4.1 Class 6 Maths Question 5.
Draw a rough figure and label suitably in each of the following cases:
(a) Point P lies on $\overline{A B}$.
(b) $\overleftrightarrow{X Y}$ and $\overleftrightarrow{P Q}$ intersect at M .
(c) Line $L$ contains $E$ and $F$ but not $D$.
(d) $\overleftrightarrow{O P}$ and $\overleftrightarrow{O Q}$ meet at 0

Solution:


## Ex 4.1 Class 6 Maths Question 6.

Consider the following figure of line MN. Say whether following statements are true or false in context of the given figure.

(a) $\mathrm{Q}, \mathrm{M}, \mathrm{O}, \mathrm{N}, \mathrm{P}$ are points on the line $\overleftrightarrow{M N}$
(b) M, O, N are points on a line segment $\overline{M N}$.
(c) M and N are end points of line segment $\overline{M N}$.
(d) O and N are end points of line segment $\overline{O P}$.
(e) M is one of the end points of line segment $\overline{Q O}$.
(f) M is point on ray $\overrightarrow{O P}$.
(g) Ray $\overleftrightarrow{O P}$ is different from ray $\overrightarrow{Q P}$
(h) Ray $\overleftrightarrow{O P}$ is same as ray $\overrightarrow{O M}$.
(i) Ray $\overrightarrow{O M}$ is not opposite to ray $\overleftrightarrow{O P}$.
(j) O is not an initial point of $\overleftrightarrow{O P}$.
(k) N is the initial point of $\overrightarrow{N P}$ and $\overrightarrow{N M}$.

Solution:
(a) True
(b) True
(c) True
(d) False
(e) False
(f) False
(g) True
(h) False
(i) False
(j) False
(k) True

