## 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  $\overrightarrow{DB}$  or  $\overrightarrow{BD}$ . (c) Four rays are:  $\overrightarrow{OC}$ ,  $\overrightarrow{OB}$ ,  $\overrightarrow{OE}$  and  $\overrightarrow{OD}$ (d) Five line segments are:  $\overrightarrow{OE}$ ,  $\overrightarrow{ED}$ ,  $\overrightarrow{OD}$ ,  $\overrightarrow{OB}$  and  $\overrightarrow{EB}$ .

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:

-	-	_		
	Ă Ĕ	s č	D	
$(i) \overleftarrow{AB}$	( <i>ii</i> )	ĀĊ	(iii)	$\overleftarrow{\mathrm{AD}}$
$(iv) \ \overrightarrow{\mathrm{BC}}$	<i>(v)</i>	$\overleftarrow{\mathrm{BD}}$	(vi)	$\overleftarrow{\text{CD}}$
(vii) 🖬	(viii)	$\overrightarrow{CA}$	(ix)	$\overrightarrow{\text{DA}}$
$(x) \overrightarrow{CB}$	(xi)	$\overrightarrow{\mathrm{DB}}$	(xii)	$\overrightarrow{\mathrm{DC}}$

- 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) 
$$\overleftarrow{EF}$$

- (b)  $\overleftarrow{AE}$
- (c)  $\overleftarrow{BC}$  or  $\overleftarrow{BO}$
- (d)  $\overrightarrow{CO}$  or  $\overrightarrow{AE}$  or  $\overrightarrow{AE}$  or  $\overrightarrow{EF}$

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  $\overline{AB}$ .
- (b)  $\overleftrightarrow{XY}$  and  $\overleftrightarrow{PQ}$  intersect at M.
- (c) Line L contains  $\mathsf{E}$  and  $\mathsf{F}$  but not  $\mathsf{D}.$
- (d)  $\overleftrightarrow{OP}$  and  $\overleftrightarrow{OQ}$  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) Q, M, O, N, P are points on the line  $\overrightarrow{MN}$ . (b) M, O, N are points on a line segment  $\overline{MN}$ . (c) M and N are end points of line segment  $\overline{MN}$ . (d) O and N are end points of line segment  $\overline{OP}$ . (e) M is one of the end points of line segment  $\overline{QO}$ . (f) M is point on ray  $\overrightarrow{OP}$ . (g) Ray  $\overrightarrow{OP}$  is different from ray  $\overrightarrow{QP}$ . (h) Ray  $\overrightarrow{OP}$  is same as ray  $\overrightarrow{OM}$ . (i) Ray  $\overrightarrow{OM}$  is not opposite to ray  $\overrightarrow{OP}$ . (j) O is not an initial point of  $\overrightarrow{OP}$ . (k) N is the initial point of  $\overrightarrow{NP}$  and  $\overrightarrow{NM}$ .

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