

Name: _____ Grade: IV Branch: _____ Date: 02/05/20

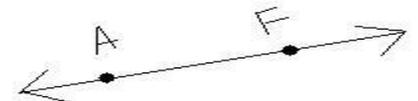
Subject: Mathematics

BASIC GEOMETRY

- **Point:** A point is a location in space. It is represented by a dot. Point are usually named with an upper-case letter. For example, we refer to the following as "point A".



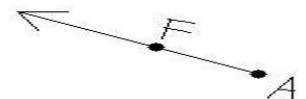
- **Line:** A line is a collection of points that extend endlessly. The two arrows are used to show that it extends endlessly on both sides and has no endpoints. We put two points in order to name the line as line AF. We can also name it line FA.



- **Line segment:** A line segment is part of a line. A line segment has two endpoints. Here A and F are the endpoints. The following is a line segment AF or line segment FA.



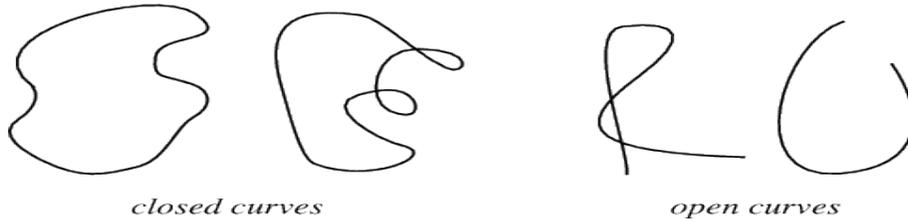
- **Ray:** A ray is a collection of points that begin at one point (an endpoint) and extend forever on one direction. The following is a ray AF.



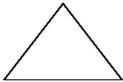
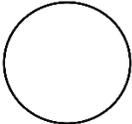
- **Curved line:** A path between two points which has no straightness is called curved line.

Types of curves:

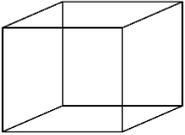
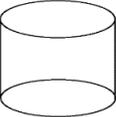
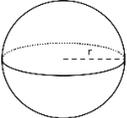
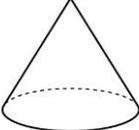
1. **Open curve:** A curve which does not end at the starting point.
2. **Closed curve:** A curve which begins and ends at the same point.



- **Plane shapes:** The shapes which have 2 dimensions (length and breadth) are known as plane shapes or flat shapes or 2-D shapes.

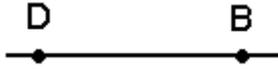
Sr.no	2-D Shapes	Names	No. of Sides	No. of Corners
1		Square	4 equal sides	4
2		Rectangle	4	4
3		Triangle	3	3
4		Circle	0	0

- **Solid shapes:** The shapes which have 3 dimensions (length, breadth and height) are known as solid shapes or 3-D shapes.

S.no	3-D shapes	Names	No. of faces	No. of Edges	No. of Vertices	Examples
1		Cube	6 square faces	12	8	Ice cube, Dice etc
2		Cuboid	6 rectangular faces	12	8	Match box, pencil box, brick etc
3		Cylinder	2 plane & 1 curved faces	2	0	Glass, Pouch, Tube light etc
4		Sphere	1 round face	0	0	Laddu, Ball etc
5		Cone	1 curved & 1 plane faces	1	1	Ice cream cone, Funnel, birthday cap etc

WORKSHEET

1. Circle the correct name for the below.



line segment DB

line DB

line segment BD



line segment M

line NM

line segment MN



line segment X

line XY

line segment XY

2. Mention 2 real life objects which resembles the given shape.

a) Cylinder: _____ , _____

b) Sphere : _____ , _____

c) Cone : _____ , _____

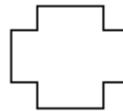
3. Tick the correct answer.

a) Pick the 2-D shape : Cube , Square

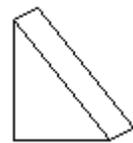
b) Pick the 3-D shape : Oval , Prism

c) Shape with flat faces: Pyramid, Sphere

4. Write *how many sides* and *vertices* the shape has?



5. How many faces, edges and vertices do the following object have?



6. A flat surface of a shape is known as _____

7. An exact location in space is called a _____

8. A _____ is a straight path that goes on without end in both directions.

9. Draw 3 open curves and 3 closed curves.

10. a) Draw a line and ray. Name them.

b) Draw line segments of length 3.5cm and 8.3cm. Name them.