

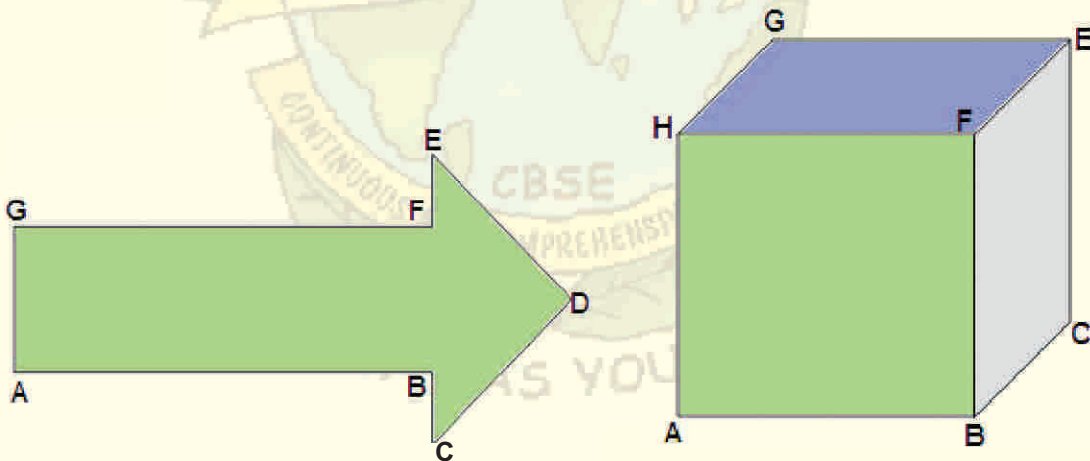
## CHAPTER-5

# Introduction To Euclid's Geometry

### Task-1: Recognise and tell

Topic	Introduction to Euclid's Geometry
Nature of task	Warm up
Content Coverage	Concept of point, surface and edges of surface
Learning Objectives	To recognise point, line segment, surface in the given object / shape
Execution of task	Teacher may show or draw various shapes or objects and ask the students to tell point, surface and edges of surface. This task may be taken up as an introductory activity in the classroom.
Duration	10-15 minutes
Criteria for assessment	It is a warm up task to initiate the chapter; it is not required to assign marks for this task.

Identify points, line segments, surface in the following :



**Note :** The teacher may take up any object / shape for this activity.



**Task-2: Match the following**

Topic	Introduction to Euclid's Geometry
Nature of Task	Content
Content Coverage	Basic definition, axiom, postulates etc
Learning Objective	To learn about various terms like axioms, postulates, theorems
Execution of Task	After explaining the topic, the teacher may give a "Match the following" task to test the knowledge and understanding of students
Duration	10–15 minutes
Criteria for assessment	Marks may be allotted according to the number of terms taken in the task

Match the following :

Column I		Column II	
1	Undefined terms	A	Postulates
2	Father of Geometry	B	Theorems
3	Assumptions specified to Geometry	C	Surface
4	Common notions	D	Point, line, plane
5	Having length and breadth only	E	Euclid
6	Edges of a surface	F	Axioms
7	Euclid's famous treatise	G	Elements
8	Statements having proof	H	Lines



**Task-3: Mind Map Activity**

Topic	Introduction to Euclid's Geometry
Nature of Task	Content
Content Coverage	Euclid's Axioms and Postulates
Learning Objective	To make a mind map on important points in the chapter
Execution of Task	While teaching students may be asked to prepare a mind map (a Sample is shown) for remembering and revising the chapter.
Duration	1 Period
Criteria for assessment	This is a learning task, so no need to give marks.
Follow up	Help children to remember the important points by repeating the Axioms.

**Note:** Mind mapping is an effective brainstorming strategy. It may be utilized in the classroom at the time of recapitulation also. Students may be asked to make a mind map on

- What did they learn in this chapter ?
- What are the important points of the chapter ?
- What are the applications of topic learnt ?
- What are the different ways of solving a problem ?





**Task-4: MCQ Worksheet**

Topic	Introduction to Euclid's Geometry
Nature of Task	Post Content
Content Coverage	Complete Chapter
Learning Objective	To apply the knowledge gained in the chapter for solving given problems
Execution of Task	After explaining the topic, the teacher may give a MCQ Worksheet in the class.
Duration	1 Period
Criteria for assessment	For each correct answer 1 mark may be allotted. Teacher may use the strategy of peers checking in pairs
Follow up	Answers to the questions can be discussed.

**MCQ Worksheet**

- According to Euclid's definition, the ends of a line are  
A. breadthless      B. points      C. lengthless      D. none of these
- According to listing in the class IX book of NCERT, the first axiom is  
A. Things which are equal to the same thing, are equal to each other.  
B. If equals are added to equals, the results are equal.  
C. If equals are subtracted from equals, the results are equal.  
D. The whole is greater than its part.
- Things which are three times of the same thing are  
A. equal to each other      B. not equal to each other  
C. half of the same thing      D. double of the same thing
- A solid has  
A. no dimension      B. one dimension  
C. two dimension      D. Three dimension



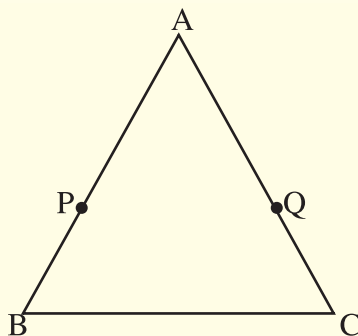
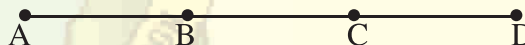


**Task-5: Home Assignment**

Topic	Introduction to Euclid's Geometry
Nature of Task	Post Content
Content Coverage	Complete Chapter
Learning Objective	To apply the basic definition, axioms and postulates to solve questions.
Execution of Task	For extra practise of content taught, home assignment can be given after the completion of Chapter.
Duration	1 Day
Criteria for assessment	Follow CW / HW / Assignment Rubric
Follow up	Class Discussion. Answers to the questions may be discussed in class room and individual queries may be answered

**Home Assignment**

1. What was the name of the famous book of Euclid? How many chapters it had?
2. It is known that  $x + y = 10$ . Is it true to say that  $x + y + p = 10 + p$ ?
3. If  $AB = CD$ , can you say that  $AC = BD$  ?  
Give reasons for your answer.
4. If  $\angle 1 = \angle 2$ ,  $\angle 3 = \angle 4$  and  $\angle 2 = \angle 4$ , what is the relation between  $\angle 1$  and  $\angle 2$ . Give reasons for your answer.
5. If  $AB = 4$  cm,  $CD = 8$  cm and  $PQ = 2$  times  $AB$ . Are  $CD$  and  $PQ$  equal ? Which axiom is used for proving this ?
6.  $AB = AC$  and  $AP = AQ$ . Can you say that  $BP = CQ$  ? Which axiom are you using for this ?



7.  $l = 3$  cm long and lengths of lines  $m$  and  $n$  are three-fourth the length of  $l$ . Are  $m$  and  $n$  equal ?

