

Tender Heart High School, sec. - 330 chd.

DATE

Class: VII

Teacher: Deepika

Subject: Mathematics

Topic: Chapter - 19 : Symmetry

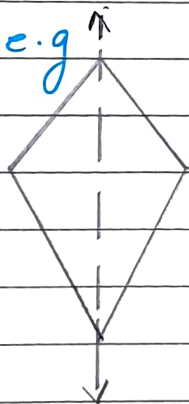
In this chapter we will do three types of Symmetry

Reflection
(Linear Symmetry)

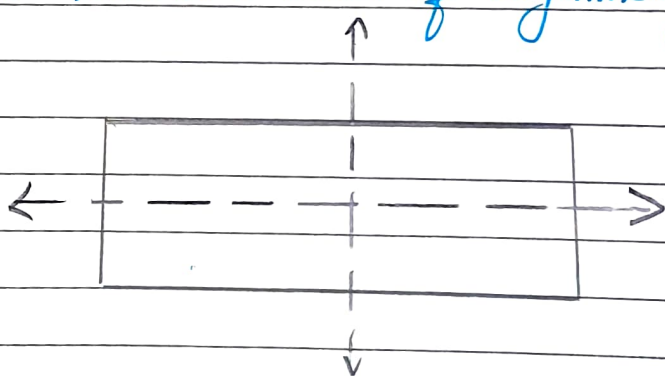
Point Symmetry

Rotational Symmetry

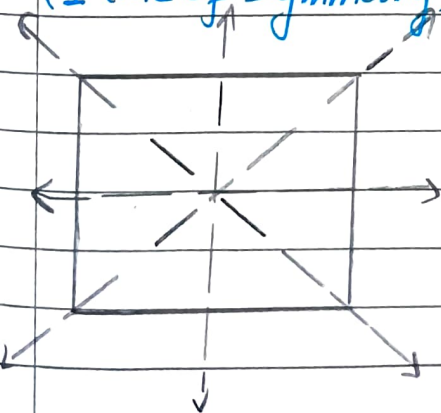
1. **Linear Symmetry:** If a line divides a given figure into two identical parts, then the figure is said to be Symmetrical about that line (i.e. axis of Symmetry)
for e.g.



Kite
(1 line of Symmetry)



Rectangle
(2 line of Symmetry)



Square
(4 line of Symmetry)

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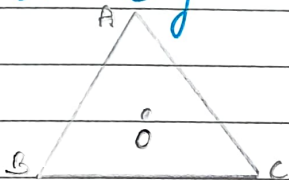
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2. Point Symmetry:

A figure is said to have point symmetry, if for every point P , $\exists$ a point P' lies directly opposite to point P .

For e.g.



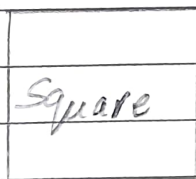
No 'point symmetry'



'S' has 'point symmetry'

3. Rotational Symmetry: A figure is said to possess a rotational symmetry, if it fits to its shape after the rotation to some degree.

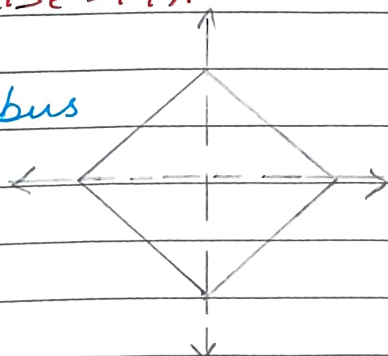
for e.g.



Square: It possesses a rotational symmetry of order 4.
($\because$ It attains its original position after 90°)

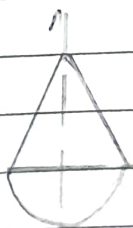
Exercise - 19A

Q.15 Rhombus

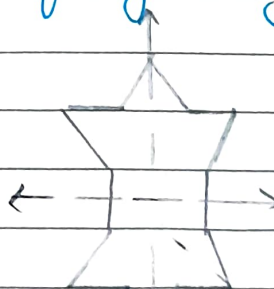


A rhombus has 2 lines of symmetry.

Q.18



This figure has one line of symmetry



$\rightarrow$ 2 line of symmetry

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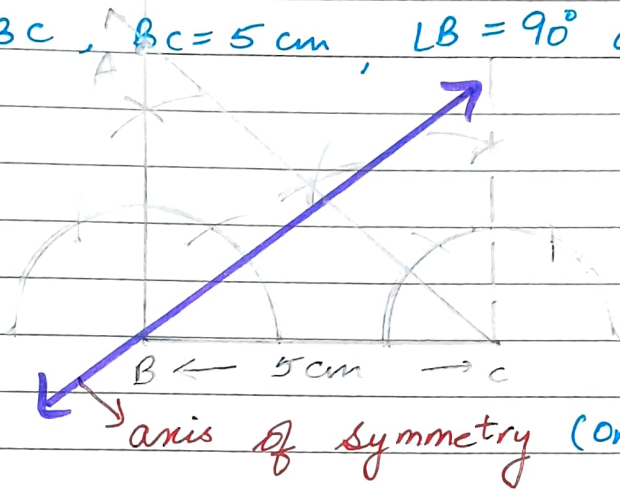
Teacher: Deepthi

classmate

Date

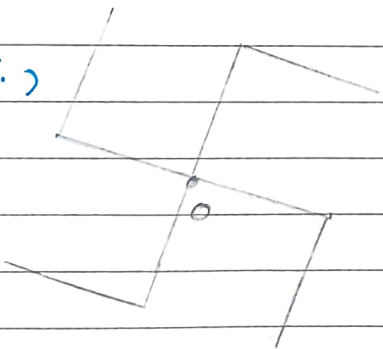
Page

Q-12 $\triangle ABC$, $BC = 5\text{ cm}$, $\angle B = 90^\circ$ and $\angle C = 45^\circ$



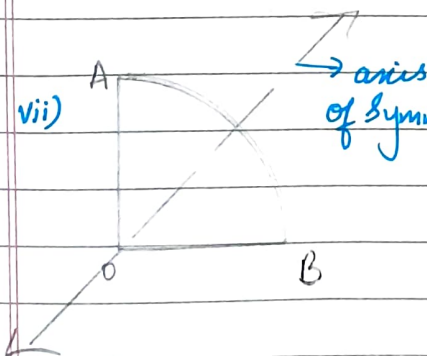
Exercise - 19B

Q-4 (i)



- a) Linear Symmetry : No
- b) Point Symmetry : 'Point O' is the point symmetry
- c) Rotational Symmetry : At every 90° rotation, figure will be in its position. (Order = 4)

vii)



- a) Linear Symmetry : 1
- b) Point Symmetry : No
- c) Rotational Symmetry : Nil

