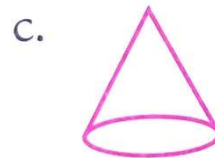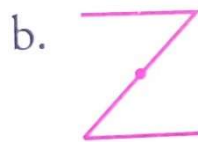# INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2023-24

CLASS: VII   SUBJECT: MATHEMATICS   DATE:20-02-2024

LESSON: 14 SYMMETRY

1. The angle of rotation of a rectangle is ------
2. The number of lines of symmetry of a regular polygon-------- to the number of sides
3. The angle of rotation of the letter S is ------------
4. The number of lines of symmetry for a rhombus is -------
5. Write three letters of the English alphabet which do not have any line of symmetry.
6. Give examples of two shapes that have rotational symmetry, other than a square, a rectangle, and a circle.
7. A shape looks the same as its original position after rotating through 30°. Find the order of rotational symmetry of the figure. At what other angles will there be rotational symmetry?
8. Find the order of rotational symmetry and the angle of rotation for the following:

    a) **N**   b) **H**   c) **G**   d) **W**

9. Find the angle of rotation and the order of rotational symmetry for the following:

10. Give two examples for each of the following:

    a) English letters which have both rotational and reflection symmetries.
    b) English letters which have rotational symmetry but no reflection symmetry.

Answers:

1. 180°   2. Is equal   3. 180°   4. 2
5. F, G,J   6. Regular Pentagon & Regular Hexagon

7. 12;60°,90°,120°,150°,180°,210°,240°,270°,300°,330°,360°.

8. a) **N**- 2,180°   b) **H**- 2 ,180°   c) **G**- 1 ,360°   d) **W**- 1,360°

9. a) 45° ; 8   b) 180° ; 2   c) 360° ; 1

10. a) H; X   b) N, S

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