<u>INTERNATIONAL INDIAN SCHOOL</u> <u>BURAIDAH</u>

Worksheet For The Academic Year 2023-24 CLASS: <u>IX</u> SUBJECT: <u>Mathematics</u> DATE: <u>29/10/2023</u> <u>LESSON-5</u> Introduction to Euclid's Geometry

- 1) State any two Euclid's Axioms.
- 2) Solve x 5 = 20 using Euclid's axiom.
- 3) Solve x + 4 = 10 using Euclid's axiom.
- 4) If $\lfloor 1 = \lfloor 3 \rangle$, $\lfloor 2 = \lfloor 4 \rangle$ and $\lfloor 3 = \lfloor 4 \rangle$, write the relation of $\lfloor 1 \rangle$ and $\lfloor 2 \rangle$ using Euclid's Axiom.
- 5) Prove that every line segment has one and only one midpoint.
- 6) How many lines can pass through two distinct points.
- 7) What are parallel lines?
- 8) If a point C be the midpoint of line segment AB , then write the relation among AC , BC and AB.
- 9) If a point C lies between A and B such that AC = BC, prove that $AC = \frac{1}{2}AB$.
- 10) If A, B, C, D are points in an order on a line and AC = BD then prove that AB = CD.
- 11) If C is the midpoint of AB and D is the midpoint of XY and AC = XD, Using Euclid's Axiom show that AB = XY.
- 12) In the figure, we have $\[\] 1 = \[\] 3$ and $\[\] 2 = \[\] 4$, show that $\[\] A = \[\] C$. ($\[\] BAC = 1$, $\[\] BCA = 3$, $\[\] DAC = 2$, $\[\] DCA = 4$)



- 13) State Euclid's fifth Postulate. What is the postulate saying about?
- 14) State any two Euclid's Postulates.
- 15) What is the difference between a Postulate and a theorem.