



INDIAN SCHOOL DARSAIT

DEPARTMENT OF MATHEMATICS



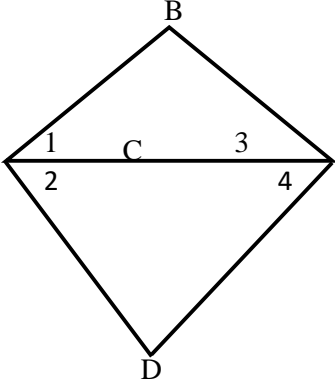
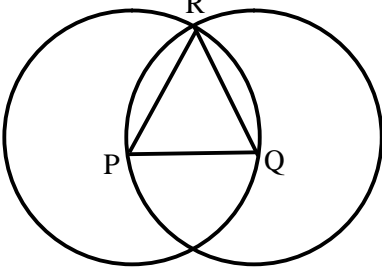
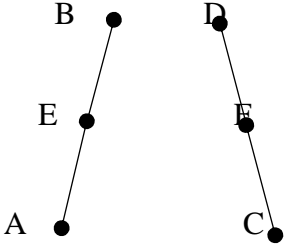
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| Subject : Mathematics | Topic : Introduction to Euclid Geometry | Date of Worksheet : 27-5-2017 |
| Worksheet No:6 | | |
| Resource Person: Mrs. Anu Likson | | Date : _____ |
| Name of the Student : _____ | | Class & Division : IX Roll Number : ____ |

| | Section A (Basic Skill) | Marks |
|----|---|--------------|
| | Answer the following questions: | |
| 1. | An angle is 25° more than its complement. What is its measure? | 1 |
| 2. | The measure of an angle is 3 times its supplement , then find the angles. | 1 |
| 3. | Find the perimeter of a rectangle whose length and breadth are respectively 25 cm and 10cm. | 1 |
| 4. | If S is a point , lies in the interior of $\angle PQR$. Given that $\angle PQR = 80^\circ$ and $\angle PQS = 35^\circ$, determine the measure of $\angle RQS$. | 1 |
| | <u>Section B</u> Answer the following questions: | |
| 1. | Prove that every line segment has one and only one midpoint. | 2 |
| 2. | In figure , C is the midpoint of AB and D is the midpoint of AC. Prove that $AD = \frac{1}{4} AB$. | 3 |
| | | |
| 3. | If a point C lies between two points A and B such that $AC = BC$, then prove that $AC = \frac{1}{2} AB$. Explain by drawing the figure. | 3 |
| 4. | In the given figure if $OX = \frac{1}{2} XY$, $PX = \frac{1}{2} XZ$ and $OX = PX$, show that $XY = XZ$. | 3 |
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| 5. | <p>In the given figure , we have $\angle 1 = \angle 3$ and $\angle 2 = \angle 4$. Show that, $\angle A = \angle C$.</p>  | 4 |
| 6. | <p>P and Q are the centres of two intersecting circles. Prove that $PQ = QR = PR$.</p>  | 4 |
| <p>Section C Answer the following questions:</p> | | |
| 1. | <p>Solve the equation $x - 15 = 25$ and state Euclid's axiom used here.</p> | 2 |
| 2. | <p>In figure , $AE = DF$, E is the midpoint of AB and F is the midpoint of DC. Using an Euclid's axiom, show that $AB = DC$.</p>  | 3 |

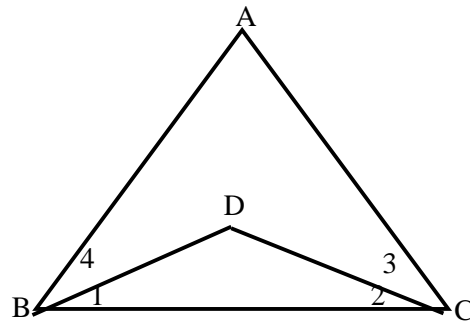


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3.

In the given figure, we have $\angle ABC = \angle ACB$, $\angle 3 = \angle 4$. Show that $\angle 1 = \angle 2$.



4