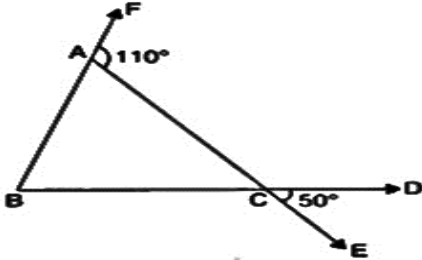


**INDIAN SCHOOL AL WADI AL KABIR**  
**Class VII, Mathematics**  
**WORKSHEET-2 (2025-26)**  
**TRIANGLE AND ITS PROPERTIES**

**Multiple Choice Questions**

Q.1. In the following figure, find  $\angle B$ .



A	30°	B	60°	C	90°	D	120°
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Q.2. The perpendicular line segment drawn from a vertex of a triangle to the opposite side is called its\_\_\_\_\_.

A	Altitude	B	Median	C	Hypotenuse	D	Base
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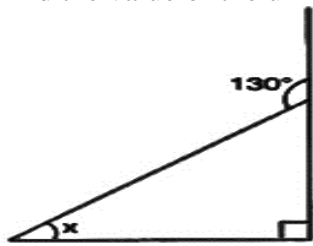
Q.3. Which of the following can be the length of the third side of a triangle whose measure of two sides are given as 18cm and 14 cm?

A	5 cm	B	4 cm	C	3 cm	D	32 cm
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Q.4. If the exterior angle of a triangle is  $150^\circ$  and its interior opposite angles are equal, then measure of each interior opposite angle is:

A	30°	B	65°	C	50°	D	75°
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Q.5. Find the value of the unknown interior angle  $x$  in the following figure:



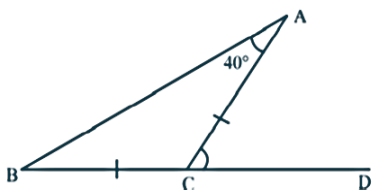
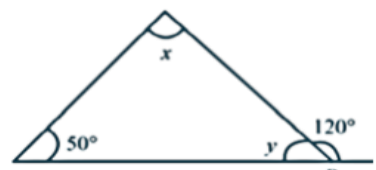
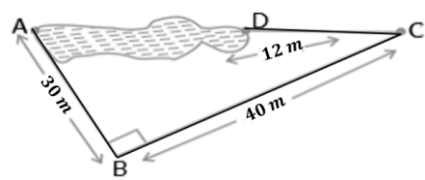
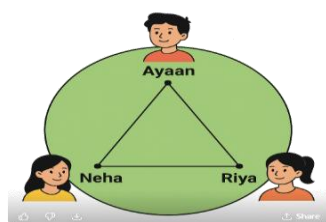

A	90°	B	50°	C	80°	D	40°
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Q.6. One of the acute angles of a right triangle is  $36^\circ$ . The other angle is:

A	54°	B	144°	C	46°	D	74°
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Q.7. In  $\triangle PQR$ , if  $PQ = QR$  and  $\angle Q = 70^\circ$ , then  $\angle R$  is equal to\_\_\_\_\_.

A	40°	B	55°	C	110°	D	100°
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Q.8	<p>In Fig. <math>BC = CA</math> and <math>\angle A = 40^\circ</math>. Then, <math>\angle ACD</math> is equal to: <b>(2 marks)</b></p> 
Q.9	<p>Check whether these numbers 8, 15 &amp; 17 form a right-angled triangle or not (show working): <b>(2 marks)</b></p>
Q.10	<p>The measures of <math>\angle x</math> and <math>\angle y</math> is (give reason): <b>(2 marks)</b></p> 
Q.11	<p>If the angles of a triangle are in the ratio 4:5:9. Find all the angles of the triangle. <b>(3 marks)</b></p>
Q.12	<p>The length of each side of a rhombus is 10cm and one of its diagonals is of length 16cm. Find the Length of the other Diagonal.</p>
Q.13	<p>Find the perimeter of the rectangle whose length is 60 cm and a diagonal 61 cm.</p>
Q.14	<p><b>CASE STUDY-1:</b></p> <p>For an exhibition the students of class VII were asked to make a model for Mathematics in triangular shape. They made the model in the shape of <math>\triangle ABC</math>.</p>  <ol style="list-style-type: none"> <li>Triangle ABC is a right triangle with <math>\angle B = 90^\circ</math>. What type of angles are <math>\angle A</math> and <math>\angle C</math>?</li> <li>What will be the measure of <math>\angle A</math> if <math>\angle C = 35^\circ</math>?</li> <li>The length of AC is:</li> <li>The length of AD is:</li> <li>Find the length of fence required to put around <math>\triangle ABC</math>.</li> </ol>
Q.15	<p><b>CASE STUDY-2:</b></p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Three friends, Ayaan, Neha, and Riya, decide to meet at a park. They choose three different points on the boundary of the park and connect them with straight walking paths to meet at the center, forming a triangle-shaped pathway.</p> <ol style="list-style-type: none"> <li>If the angle measures at Ayaan's point <math>70^\circ</math>, at Neha's point <math>65^\circ</math>, then what will be the angle at Riya's point?</li> <li>What type triangle is this?</li> <li>What is the exterior angle formed at Ayaan?</li> </ol>

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Answers	<b>1</b>	B	<b>2</b>	A	<b>3</b>	A	<b>4</b>	D
	<b>5</b>	D	<b>6</b>	A	<b>7</b>	B	<b>8</b>	80°
	<b>9</b>	yes	<b>10</b>	X=70°; Y=60°	<b>11</b>	40°,50°,90°	<b>12</b>	12cm
	<b>13</b>	142 cm	<b>14</b>	i)Acute angles ii)55° iii)50m iv)38m v)120m	<b>15</b>	1)45° 2)Acute triangle 3)110°		