

St. Andrews Scots Sr. Sec. School

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Session: 2025–26 - Worksheet

Class: VII	Subject: Mathematics	Topic: Triangle and its Properties	Worksheet - 20
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Do as Directed:

Question 1

The angles of a triangle are in the ratio 1 : 2 : 3.

Find the measure of each angle.

Question 2

In a triangle, two angles measure 45° and 65° .

Find the third angle.

Question 3

The exterior angle of a triangle is 130° and one of its interior opposite angles is 50° .

Find the other interior opposite angle.

Question 4

The sides of a triangle are 4 cm, 6 cm, and 9 cm.

Check whether a triangle can be formed using these sides. Give reasons.

Question 5

In triangle ABC, $AB = AC$ and $\angle B = 35^\circ$.

Find $\angle A$ and $\angle C$.

Question 6

The angles of a triangle are $(x + 20)^\circ$, $(2x + 10)^\circ$, and $(x - 10)^\circ$.

Find the value of x and hence find all the angles of the triangle.

Question 7

In a triangle, the ratio of the sides is 3 : 4 : 5.

If the perimeter of the triangle is 36 cm, find the length of each side.

Question 8

In triangle PQR, the exterior angle at Q is 110° and one of the interior opposite angles is 45° .

Find the other interior opposite angle.

Question 9

The lengths of two sides of a triangle are 7 cm and 10 cm.

What should be the minimum and maximum length of the third side? Explain.

Question 10

In an isosceles triangle, the base angles are each 50° .

Find the vertex angle.

Question 11

The sides of a triangle are x , $x + 2$, and 10.

If the perimeter of the triangle is 30 cm, find the value of x and verify whether a triangle is possible.