

International Indian School Buraidah
STD VII - Maths Worksheet - 06
L # 6 Triangles & Its Properties
L #7 Congruence Of Triangles

Fill in the blanks:

1. Triangles can be named in different ways based on their _____ and _____ .
2. A _____ joins a vertex of a triangle to the midpoint of the opposite side.
3. A triangle has _____ medians and _____ altitudes.
4. In an _____ triangle one of its altitudes lie on the exterior of the triangle.
5. In a _____ triangle its sides itself form the altitudes.
6. In a triangle the sum of the lengths of any two sides is _____ than the third side.
7. If in a triangle the _____ property holds then the triangle is right angled.
8. We use four criteria to check _____ of triangles.
9. If two figures have the same _____ and _____ , they are congruent.
10. Two circles are congruent if they have the same _____.

Solve the following:

11. The two interior opposite angles of an exterior angle are 75° and 35° . Find the measure of the exterior angle.
12. If $\triangle ABC$ is right angled at B , then find $\angle ABD$ which is an exterior angle of the triangle.
13. Three angles of triangle are in the ratio 1:2:3 . What type of a triangle is it ?
14. The lengths of two sides of a triangle are 4cm and 9cm. Find two numbers between which is the length of the third side.
15. Is it possible to have a triangle of sides 12cm ,9cm ,15cm . Also check whether they can be the sides of a right angled triangle.

16. Find the perimeter of a rectangle ABCD where $AB=8\text{cm}$ and $AC=17\text{cm}$.

17. In a right angled triangle one acute angle is 25° , find the other acute angle of the triangle.

18. If two triangles are congruent by the correspondence $\triangle BAC \leftrightarrow \triangle XZY$, write all the corresponding parts of the two triangles.

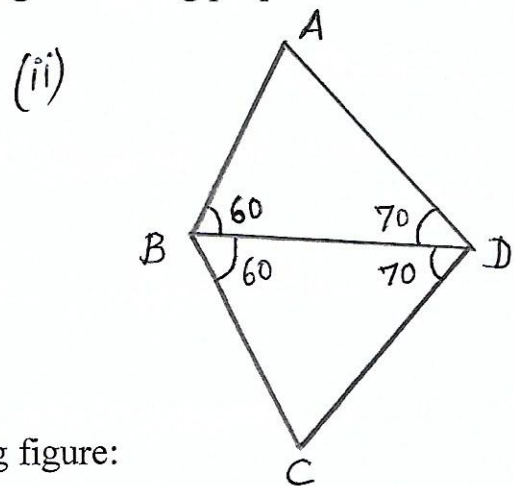
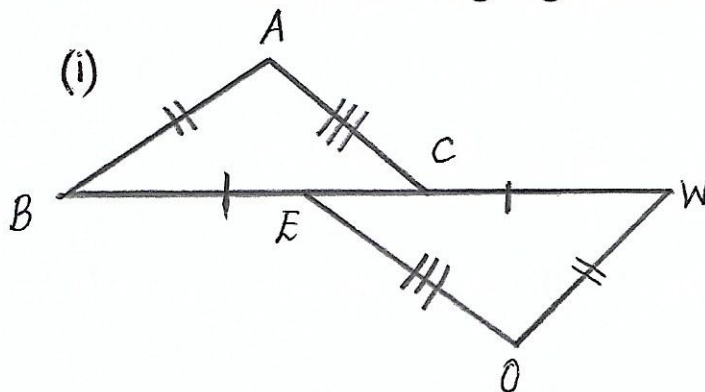
19. $\triangle ABC$ is isosceles with $AB=AC$ and AP is perpendicular to BC . Find if

- (i) $\triangle ABP \cong \triangle ACP$ (ii) $\angle BAP = \angle CAP$ (iii) $BP=PC$

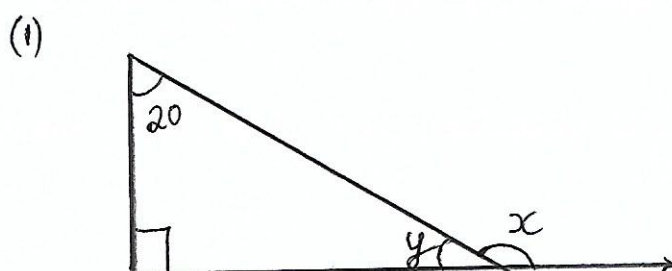
20. In a parallelogram ABCD

(i) $\triangle BCD \cong \triangle DAB$ (ii) $\angle BCD = \angle DAB$ (iii) Also name the different rules that can be used to check congruence of the two triangles.

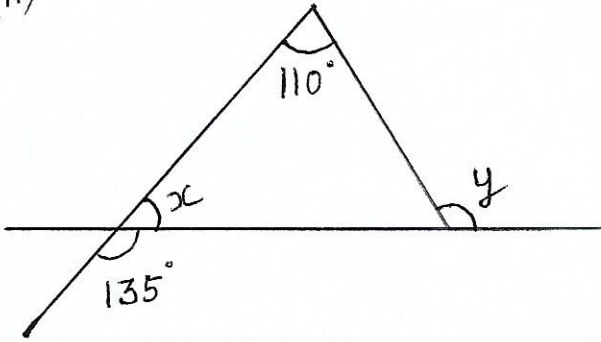
21. Check whether the triangles given are congruent using proper criteria:



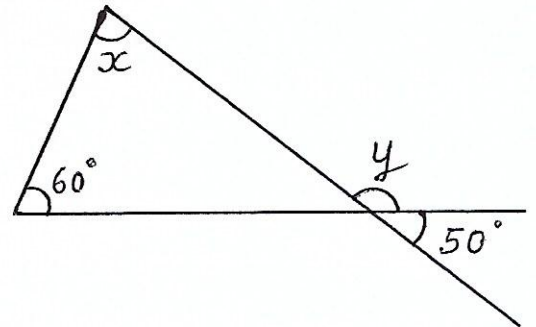
22. Find the unknown values in the following figure:



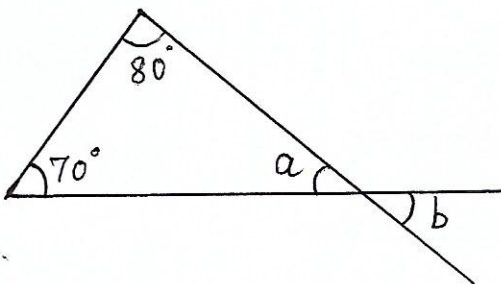
(ii)



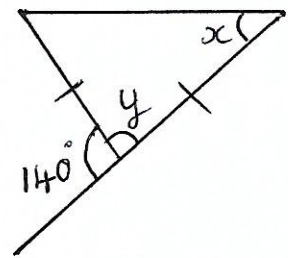
(iii)



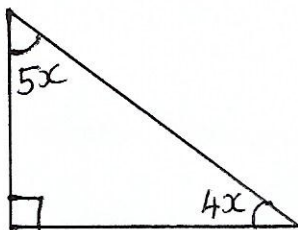
(iv)



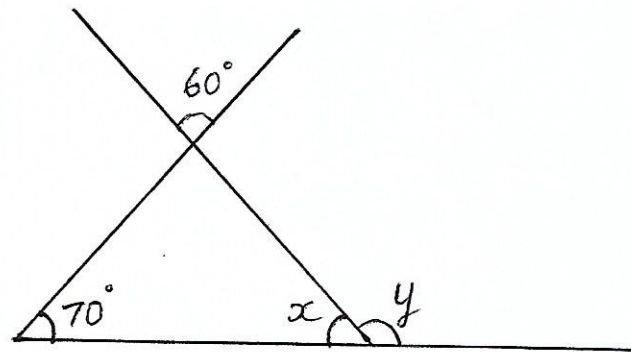
(v)



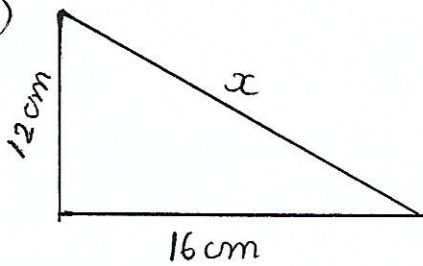
(vi)



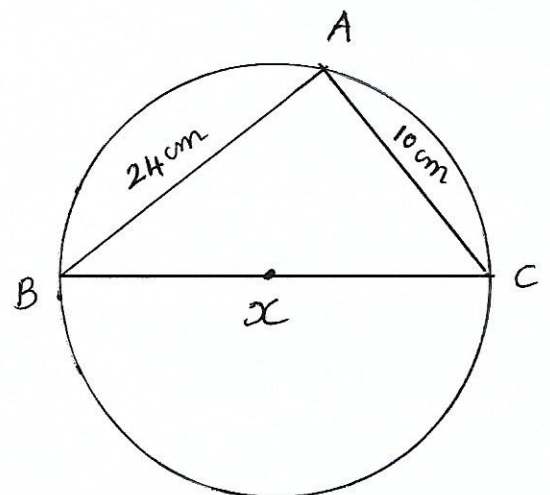
(vii)



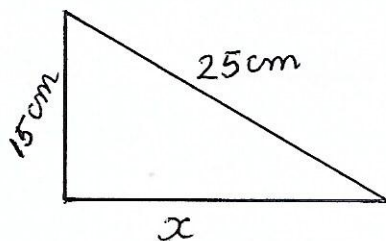
(viii)



(ix)



(ix)



(3)