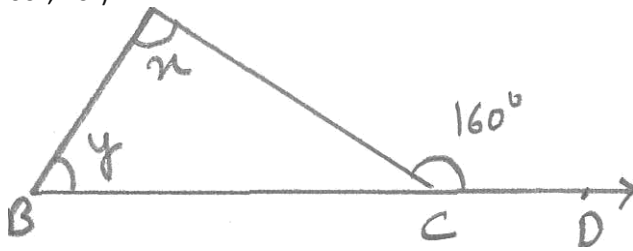**INTERNATIONAL INDIAN SCHOOL BURAIDAH**
Worksheet for the Academic Year 2024-25
CLASS: 7 / SUBJECT: Maths
LESSON : 6 Triangle and its Properties

1. In ΔABC, $\llcorner A = 60^o$, $\llcorner B = 45^o$, find $\llcorner C$. [ans:75°]

2. The angles of a triangle are in the ratio 2:3:4.Find the angles. [ans:40,60,80]

3. One angle of ΔABC is 30° and other two angles are equal. Find the value of each equal angle. [ans:75°]

4. Find the measure of the third angle of a triangle two of whose angles are:
   1) $38^o, 102^o$ 2) $116^o, 30^o$

5. In a right angled triangle one acute angle is 30°.Find the other acute angle. [ans:60°]

6. The acute angles of a right triangle are in the ratio 2:3.Find the angles of the triangle. [ans:36°,54°]

7. Find the unknown value:-

   (a) In the triangle ABC, $\angle B = 90°$, AB = 3cm, BC = 4cm, AC = ? [ans:5 cm]

   (b) In the triangle ABC, $\angle A = 90°$, AB = 6cm , AC = 8cm , BC=? [ans:10 cm]

   (c)In the triangle NOW, NO= 40cm, OW= 9cm and NW= 41cm.

   find the degree measure of $\angle O$. [ans:90°]

8. The exterior $\llcorner$ PRS of ΔPQR is 105°.If $\llcorner Q = 70^o$,find $\llcorner p$. [ans:35°]

9. One of the exterior angle of a triangle is 105° and the interior opposite angles are in the ratio 2:5.Find the angles of the triangle. [ans:30°,75°].

10. The diagonals of a rhombus measure 16 cm and 30 cm. find its perimeter. [ans:68 cm]

11. How many medians can a triangle have? [ans:3]

12. Find which of the following are sides of a right triangle
    1)1 cm,1cm,2cm   2)0.25 cm,0.6 cm,0.65cm   [ans: 2]

13. One of the base angles in an isosceles triangle is 35°.Find the measure of the third angle [ans: 110°

14. An iron rod 13m long is placed against a wall .The distance of the foot of the iron rod from the wall is 5m.How high up the wall does it reach? [ans:12 m]

15. A man goes 3km North and then 4 km East. Find how far away is he from his initial position? [ans:5km]

16. In the following figures, x:y = 5:3 and ∟ACD = 160° , find the values of x,y and z.   (ans: 100°, 60°, 20°)

17. The length and breadth of a rectangle are 35 cm and 12 cm. Find the length of its diagonal.   [ans:37 cm]

18. One of the exterior angle of the triangle is 80° and interior opposite angles are equal to eachother. Find the measure of each of these two equal angles of the triangle.   (ans:40, 40)

19. The length of the diagonal of a rectangular garden is 34 m. If its longer side measures 30 m, findthe length of the shorter side of the garden.   (ans:16 m).

20. In the given figure, find:

∟ACD,∟ADC, ∟DAE   (ans: 80° , 150° , 130°)

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