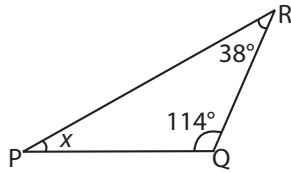


Worksheet

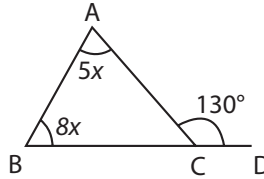
1. Choose the correct answer.
 - a. A scalene triangle has
 - i. all sides equal
 - ii. all sides unequal
 - iii. two sides equal
 - iv. all angles equal
 - b. If one angle of a triangle is greater than 90° , it is called an
 - i. obtuse-angled triangle
 - ii. acute-angled triangle
 - iii. right-angled triangle
 - iv. equilateral triangle
 - c. Sum of the angles of a triangle adds upto
 - i. 90°
 - ii. 180°
 - iii. 270°
 - iv. 360°
 - d. If two angles of a triangle are 35° and 25° , then the third angle measures
 - i. 60°
 - ii. 110°
 - iii. 30°
 - iv. 120°
 - e. If the angles of a triangle are x° , $2x^\circ$ and $3x^\circ$, then x is equal to
 - i. 90°
 - ii. 50°
 - iii. 30°
 - iv. 60°
 - f. The angles of a triangle are in the ratio $2 : 3 : 5$, then the largest angle measures
 - i. 90°
 - ii. 36°
 - iii. 54°
 - iv. 45°
 - g. If the three angles of a triangle are equal, then the triangle is an _____ triangle.
 - i. isosceles
 - ii. right-angled
 - iii. equilateral
 - iv. obtuse-angled
2. State true or false.
 - a. An equilateral triangle has one of its angle obtuse.
 - b. If the base angles of an isosceles triangle equal to 66° each, then the vertical angle is 48° .
 - c. The angles of a triangle are $\frac{5x}{2}$, $4x$ and $\frac{7x}{2}$, then the value of x is 18° .
 - d. The hypotenuse is the longest side of a right triangle.
 - e. If the sides of a triangle measures 12 cm, 5 cm and 13 cm, then it is a scalene triangle.
 - f. The third angle of a triangle whose two angles measures 110° and 30° is 40° .
3. In triangle ABC, $AB = AC$. $AD \perp BC$ meets BC at D. If $\angle ABC = 72^\circ$, find $\angle ACB$ and $\angle BAD$.

4. Find the unknown angles in each of the following.

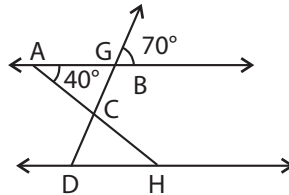
a.



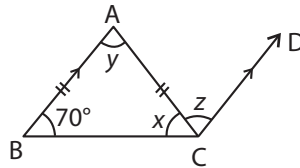
b.



5. AG and DH are two parallel straight lines. By calculation, show that triangles ABC and CDH are two isosceles triangles.



6. Find the value of x , y and z in the given figure.



7. Find the angles of an isosceles triangle, if the equal angle measures 15° less than the third angle.

8. If the acute angles of a right triangle are in the ratio 4 : 5, then find the greatest angle.

Answers to Worksheet

1. a. ii b. i c. ii d. iv e. iii
 f. i g. iii
2. a. False b. True c. True d. True
 e. True f. True
3. $\angle ACB = 72^\circ$, $\angle BAD = 18^\circ$
4. a. 28° b. $\angle ABC = 80^\circ$, $\angle BAC = 50^\circ$
6. $x = 70^\circ$, $y = 40^\circ$, $z = 40^\circ$ 7. 70° , 55° and 55° 8. 50°