

FORMATIVE ASSESSMENT - SECOND MID TERM

Max. Marks: 50

MATHEMATICS

Std - VII

Time: 2 Hrs

Name of the School: _____	Name of the Student: _____
Place: _____	Roll No.: _____

I. Choose the correct answer:

10 x 1 = 10

- If C and D are supplementary angles, then which of these can be true?
 - Both $\angle C$ and $\angle D$ are acute angles.
 - Both $\angle C$ and $\angle D$ are obtuse angles
 - $\angle C$ is an acute angle and $\angle D$ is an obtuse angle.
- The complement of 45° is _____.
 - 90
 - 45
 - 55
- When two lines are intersected by a third line at two distinct points, the intersecting line is called the _____.
 - Parallel line
 - perpendicular
 - transversal
- The sum of any two sides of a triangle is _____ the third side.
 - Less than
 - Greater than
 - Equal to
- A triangle with 2 sides equal is called a _____.
 - Scalene
 - Isosceles
 - equilateral
- Sum of the angles of a triangle is _____.
 - 180°
 - 90°
 - 270°
- Ext $\angle A$ of $\triangle ABC = 130^\circ$. $\angle B$ and $\angle C$ are equal. The angles are _____ each.
 - 60°
 - 65°
 - 70°
- An exterior angle of a triangle measures 78° . The interior opposite angles are in the ratio 6 : 7. The angles are _____.
 - 46° and 42°
 - 52° and 26°
 - 36° and 42°
- If two lines are intersected by a transversal, then there are _____ pairs of corresponding angles.
 - 2
 - 1
 - 4
- The side opposite to the right angle of a triangle is called _____.
 - Altitude
 - hypotenuse
 - base

II. Match the following:

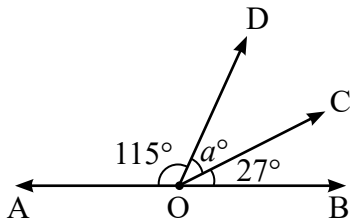
5 x 1 = 5

- | | | |
|-------------------|---|--|
| 1. Acute angle | - | 360° |
| 2. Right angle | - | greater than 180° and less than 360° |
| 3. Straight angle | - | less than 90° |
| 4. Central angle | - | 90° |
| 5. Reflex angle | - | 180° |

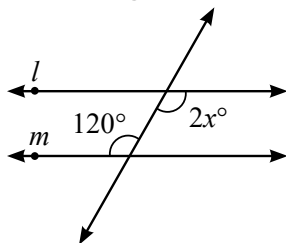
III. Answer the following: (any 10)

10 x 2 = 20

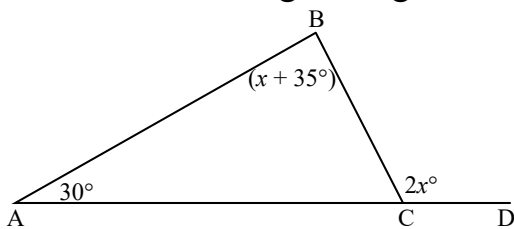
1. State the angle sum property of triangles.
2. If x° and y° are supplementary angles and $x^\circ = 130^\circ$, find y°
3. Find the value of a in the figure below:



4. If h and k are complementary angles. If h is equal to k , then what is the value of h and k ?
5. Can a triangle have the angles as 65° , 74° and 66° ? Justify your answer.
6. The angles of $\triangle ABC$ are in the ratio 5:6:7. Find the angles of the triangle.
7. In $\triangle ABC$, $\angle A$ is 15° more than $\angle B$ and $\angle B$ is 18° less than $\angle C$. Find the measures of the angles of $\triangle ABC$.
8. Find the area of a circle whose diameter is 1.4 cm .
9. In the figure below find the value of x



10. In a triangle, if the second angle is 2 times the first angle and the third angle is 3 times the first angle, find the angles of the triangle.
11. Calculate x in the given figure and the angles of $\triangle ABC$.

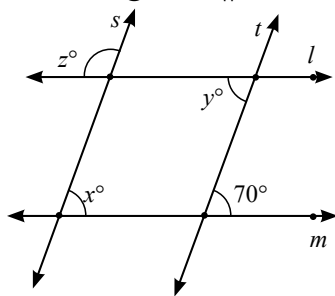


12. State SAS congruence criteria.

IV. Answer the following: (any 3)

3 x 5 = 15

1. Construct $\triangle XYZ$ right angled at X with the length of the hypotenuse 9.4 cm and the side $XY = 5.3\text{ cm}$. Measure the third side.
2. State and prove exterior angle property of triangles.
3. In the figure $l \parallel m$ and $s \parallel t$. Find the value of $x + y - z$.



4. Given $AC = AD$, $CE = DE$ and AEB is a straight line. Prove that
a) $\triangle ACE \cong \triangle ADE$ b) $\angle CEB = \angle DEB$

