

Summer Assessment

Class 9 Mathematics

1. A point lies inside a circle. Explain how its distance from the centre compares with the radius.
2. Two equal chords are drawn in the same circle. What can you conclude about their distances from the centre? Explain why.
3. Why is the perpendicular drawn from the centre of a circle to a chord important? State and explain the property.
4. A triangle has sides 13 cm, 14 cm and 15 cm. Without using the usual area formula ($\frac{1}{2} \times \text{base} \times \text{height}$), explain which formula is most suitable and why.
5. Can Heron's formula be used for every triangle? Explain your answer with reasoning.
6. A farmer wants to find the area of a triangular field but only knows the lengths of its three sides. Explain why Heron's formula is useful in this situation.