



মহাশিক্ষা বিভাগ
DEPARTMENT OF EDUCATION (S)

Government of Manipur

CHAPTER 8 CIRCLES

NOTES

- **Circle:** Circle is a closed figure consisting of all points which are at a constant distance (radius) from a fixed point (centre) in the plane.
- **Secant:** A line which intersects a circle at two distinct points is called a secant of the circle.
- **Tangent:** A line which intersects a circle at only one point is called a tangent to the circle.

Notes:

1. The tangent to a circle is a special case of secant, when the two endpoints of its corresponding chord coincide.
2. The common point of the tangent and the circle is called the point of contact.
3. All points of the tangent except the point of contact are exterior points of the circle.
4. There is no tangent to a circle passing through a point inside the circle.
5. There is one and only one tangent to a circle passing through a point lying on the circle.
6. There are exactly two tangents through (from) a point lying outside the circle.
7. Infinitely many tangents can be drawn to circle.

➤ Theorems about tangents to a circle

1. The tangent at any point of a circle is perpendicular to the radius through the point of contact.
2. The lengths of tangents drawn from an exterior point to a circle are equal.



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