

PRACTICE TEST: CLASS-X

CIRCLES (X)

1. Two circles touch each other at the point C. Prove that the common tangent to the circles at C. bisects the common tangent at P and Q.
2. Two tangents TP and TQ are drawn to a circle with centre O from an external point T. Prove that $\angle PTQ = 2\angle OPQ$.
3. PQ is a chord of length 8cm of a circle of radius 5 cm. The tangents at P and Q intersect at a point T. find the length TP.
4. In figure l and m are two parallel tangents at A and B. The tangent at C makes an intercept DE between L and M. Prove that, $\angle DFE = 90^\circ$.
5. O is the centre of a circle of radius 5 cm. T is a point such that $OT = 13$ cm and OT intersects the circle at E. If AB is the tangent to the circle at E. find the length of AB.
6. The radius of the incircle of a triangle is 4cm and the segments into which one side is divided by the point of contact are 6cm and 8cm. Determine the other two sides of the triangle.
7. If an isosceles triangle ABC in which $AB = AC = 6$ cm is inscribed in a circle of radius 9cm. Find the area of the triangle.
8. A circle is inscribed in a triangle ABC having sides 8cm, 10cm and 12cm as shown in figure find AD, BE and CF.