

**CLASS –X, SUBJECT-MATHEMETICS**

**WORKSHEET BASED ON MODULE-2**

Q1. *The lengths of tangents drawn from an external point to a circle are equal.*

Q2. Prove that in two concentric circles, the chord of the larger circle, which touches the smaller circle, is bisected at the point of contact.

Q3. Two tangents TP and TQ are drawn to a circle with centre O from an external point T. Prove that

$$\angle PTQ = 2 \angle OPQ.$$

Q4. If tangents PA and PB from a point P to a circle with centre O are inclined to each other at angle of  $60^\circ$ , then find  $\angle POA$ .

Q5. A quadrilateral ABCD is drawn to circumscribe a circle. Prove that  $AB + CD = AD + BC$

Q6. From an external point T of a circle, TP and TQ are the two tangents to a circle with centre O such that  $\angle POQ = 120^\circ$ , find the half of  $\angle PTQ$ .