



# ST. LAWRENCE HIGH SCHOOL



## A Jesuit Christian minority Institution

Subject: Mathematics

Class- X

Date:11/06/2020

### Worksheet-34

#### Chapter- Theorems on tangent to a circle

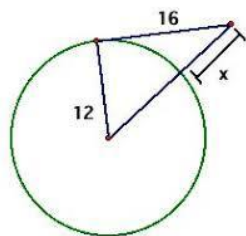
#### Topic- Theorems on tangent to circle

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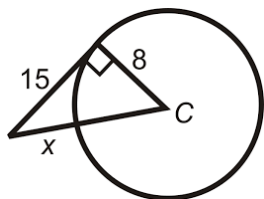
1. Choose the correct alternative.

$$1 \times 15 = 15$$

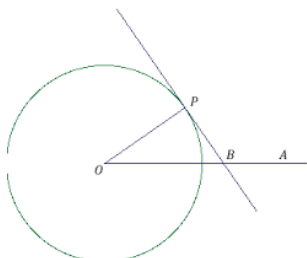
a) Find x. i) 20 units ii) 8 units iii) 6 units iv) none of these



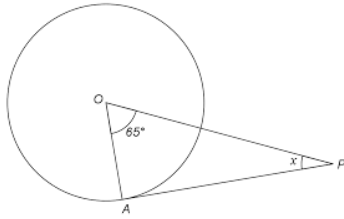
b) Find x. i) 17 units ii) 9 units iii) 11 units iv) none of these



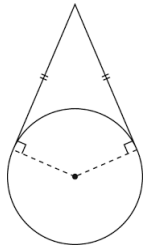
c)  $PB = 3$  cm and  $OB = 5$  cm, Find radius. i) 6 cm ii) 7 cm iii) 4 cm iv) none of these



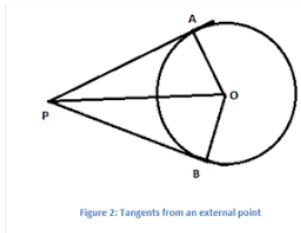
d) Find  $x$ , i)  $35^\circ$  ii)  $25^\circ$  iii)  $45^\circ$  iv) none of these



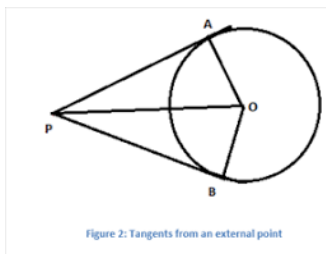
e) There are two tangents to the circle, if the measure of one tangent is 7 cm, find the measure of the other. i) 6 cm ii) 4 cm iii) 7 cm iv) none of these



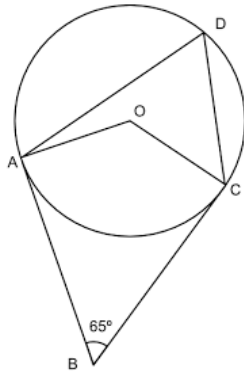
f) If  $\angle AOP = 80^\circ$  find  $\angle BOP$ . i)  $70^\circ$  ii)  $80^\circ$  iii)  $85^\circ$  iv) none of these



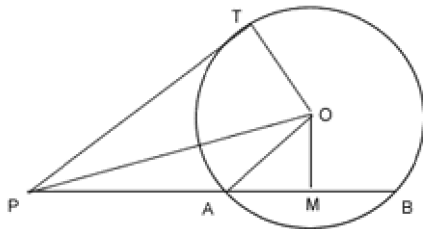
g) If  $OA = 5$  cm and  $AP = 12$  cm, find  $OP$ , i) 13 cm ii) 14 cm iii) 15 cm iv) none of these



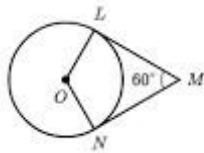
h) Find  $\angle AOC$ , i)  $155^\circ$  ii)  $115^\circ$  iii)  $151^\circ$  iv) none of these



i) Find  $\angle OPM$ , if  $\angle TOP = 75^\circ$ , i)  $15^\circ$  ii)  $25^\circ$  iii)  $35^\circ$  iv) none of these



j) Find  $\angle LON$ , i)  $120^\circ$  ii)  $130^\circ$  iii)  $125^\circ$  iv) none of these



k) If two circles do not intersect or touch each other, then the maximum number of common tangents can be drawn\_\_\_\_\_.

i) 3 ii) 2 iii) 4 iv) none of these

l) Two circles touch each other externally at the point A. A common tangent drawn to two circles at the point A is \_\_\_\_\_ common tangent.

i) transverse ii) direct iii) indirect iv) none of these

m) Two radii OA and OB of a circle with centre O make an angle of  $130^\circ$  between them . Two tangents drawn at the points A and B intersect at the point T, Find  $\angle ATB$

i)  $50^\circ$  ii)  $25^\circ$  iii)  $35^\circ$  iv) none of these

n) In a circle with centre o there is 6 cm radius . A point P is 10 cm away from the centre O of a circle . A tangent PT is drawn . Find length of PT.

i) 8 cm ii) 4 cm iii) 5 cm iv) none of these

o) In a circle with centre O , A point P is 26 cm away from the centre of the circle and the length of the tangent drawn from the point P to the circle is 10 cm. find radius

i) 48 cm ii) 24 cm iii) 12 cm iv) none of these

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