Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Geometry of the Circle – Chapter Review #2 Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Choose the best answer for each question.

\_\_\_\_\_\_\_\_\_ 1. Determine the m<M if the m<T = 59°.

1. 31
2. 59
3. 121
4. 180

\_\_\_\_\_\_\_\_\_ 2. If two circles are externally tangent, how many common tangents can be drawn?

 (1) 1 (2) 2

 (3) 3 (4) 4

\_\_\_\_\_\_\_\_\_ 3. In Circle O, chords and  intersect at E. If AE = 2, CD = 9, and CE = 4, find AB.

 (1) 10 (2) 12

 (3) 20 (4) 40

\_\_\_\_\_\_\_\_\_ 4. Which of the following statements is false?

 (1) An angle inscribed in a semicircle is a right angle.

 (2) An angle formed by a tangent and a chord has a measure equal to twice its

 intercepted arc.

 (3) A central angle has a measure equal to the arc it intercepts.

 (4) Two secants drawn from the same external point do not have to have the same

 measure.

\_\_\_\_\_\_\_\_\_ 5. In the diagram below the segments shown are tangent to the circle. Find x.

1. 5
2. 6
3. 7
4. 9

\_\_\_\_\_\_\_\_\_ 6. Given Circle O with diameter . If  find .



1. 50
2. 60
3. 80
4. 100

Show all work and formulas to solve each problem.

7. In the accompanying diagram  is tangent to Circle O at B,  is a chord, \_\_\_\_\_\_\_\_\_\_\_\_

and is a diameter. If , find .

8. In the accompanying diagram, is tangent to circle O at A. If CB = 12 and PB = 4, \_\_\_\_\_\_\_\_\_\_\_\_

what is the length of ?



9. Isosceles triangle ABC is inscribed in circle O,  and . \_\_\_\_\_\_\_\_\_\_\_\_

Find  and 

 \_\_\_\_\_\_\_\_\_\_\_\_

10. In the accompanying diagram, and are tangents are drawn to circle O and \_\_\_\_\_\_\_\_\_\_\_\_

chord  is drawn. If , what is ?





11. If the m<ABC = 62, find the measure of  . \_\_\_\_\_\_\_\_\_\_\_\_\_



Show all work and solve for the indicated piecein each problem. SHOW ALL FORMULAS!

12. ,  13. DE = 8, EF = 12, Find the length of DC.

 Find 

14. ,  15. AE = 16, ED = 5, BE = 4, find BC.

 Find 

16.  17. , , find 

 Find 



18. Draw the number of common tangents for each situation described.

|  |  |
| --- | --- |
| Concentric Circles | Externally Tangent Circles |
| Two Circles that do not touch | Intersecting Circles |

19. In the diagram of Circle O, , OB = 24, and . Find each:



 (a) OD \_\_\_\_\_\_\_\_\_\_

 (b)  \_\_\_\_\_\_\_\_\_\_

 (c)  \_\_\_\_\_\_\_\_\_\_

 (d)  \_\_\_\_\_\_\_\_\_\_

 (e) CO \_\_\_\_\_\_\_\_\_\_

 (f) BC \_\_\_\_\_\_\_\_\_\_

 (g) CD \_\_\_\_\_\_\_\_\_\_