Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Practice with Tangents, Chords, and Inscribed Angles**

Monica

Geometry Period:\_\_\_\_\_

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

**Directions:** Answer all of the questions below. Questions with correct answers and no (or incorrect) work shown will not receive any credit.

1. In the diagram below, circle *O* has a radius of 5, and . Diameter  is perpendicular to chord  at *E*.What is the length of ?



 2) In the diagram below of circle *O*, diameter  is perpendicular to chord  at point *E*, , and .What is the length of ? Write your answer in simplest radical form.

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 3) In the diagram below of circle *O*, diameter  is perpendicular to chord  at *E.* If  and , find the length of .



4) In the diagram of circle *O* below, chord  is parallel to diameter  and . What is ?



5) In the diagram below, two parallel lines intersect circle *O* at points *A*, *B*, *C*, and *D*, with  and . Find *.*

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 6) In the accompanying diagram, chord  is parallel to diameter . If , what is ?

 

7) In the diagram below of ,  is tangent to circle *O* at point *A*, , and .What is the length of ?



8) In the accompanying diagram,  and  are tangents drawn to circle *O*. If , find .



9) In the accompanying diagram,  and  are tangents drawn to circle *O*, and chord  is drawn. If , what is ?



10) In the diagram below, circles *X* and *Y* have two tangents drawn to them from external point *T*. The points of tangency are *C*, *A*, *S*, and *E*. The ratio of *TA* to *AC* is . If , find the length of .

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11) In the diagram below, KJ is tangent to circle M at point J. If KJ = 17, and LK = 10, what is the length of the radius of the circle?



 12) In the diagram below, circle *O* has . What is  in terms of *z*?

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 13) In the diagram below of circle *O*, chords **, **, , and  are drawn such that .What is the ?

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 14) In the accompanying diagram,  is a diameter and . Find .

 

 15) In the accompanying diagram of circle *O*,  and . Find the value of *x*.

 

 16) In the accompanying diagram, quadrilateral *ABCD* is inscribed in circle *O*. If  and , find .

 