

## Notes for Lesson 9-1: Basic Terms of Circles and Spheres

Try to match each given term with its definition.

Term	Definition
1) circle	<u>11</u> circles or spheres that have the same center point
2) center	<u>4</u> a segment whose endpoints lie on a circle
3) radius	<u>9</u> the set of all points in space the same distance from one center point
4) chord	<u>3</u> the distance from the center of a circle to the circle itself
5) secant	<u>2</u> the one point that is the same distance from every point on the circle
6) diameter	<u>6</u> <u>1</u> the segment whose endpoints lie on the circle and also goes through the center of the circle
7) tangent	<u>5</u> <u>1</u> the set of points in a plane that are all equal distance from a center point
8) point of tangency	<u>10</u> a line that contains a chord
9) sphere	<u>12</u> circles or spheres with the same radius
10) congruent circles or spheres	<u>1</u> a polygon that is inside a circle with all its vertices on the circle (the circle is circumscribed around the polygon)
11) concentric circles or spheres	<u>7</u> a line that intersects the circle in exactly one point
12) inscribed polygons	<u>8</u> the point where a tangent line meets the circle

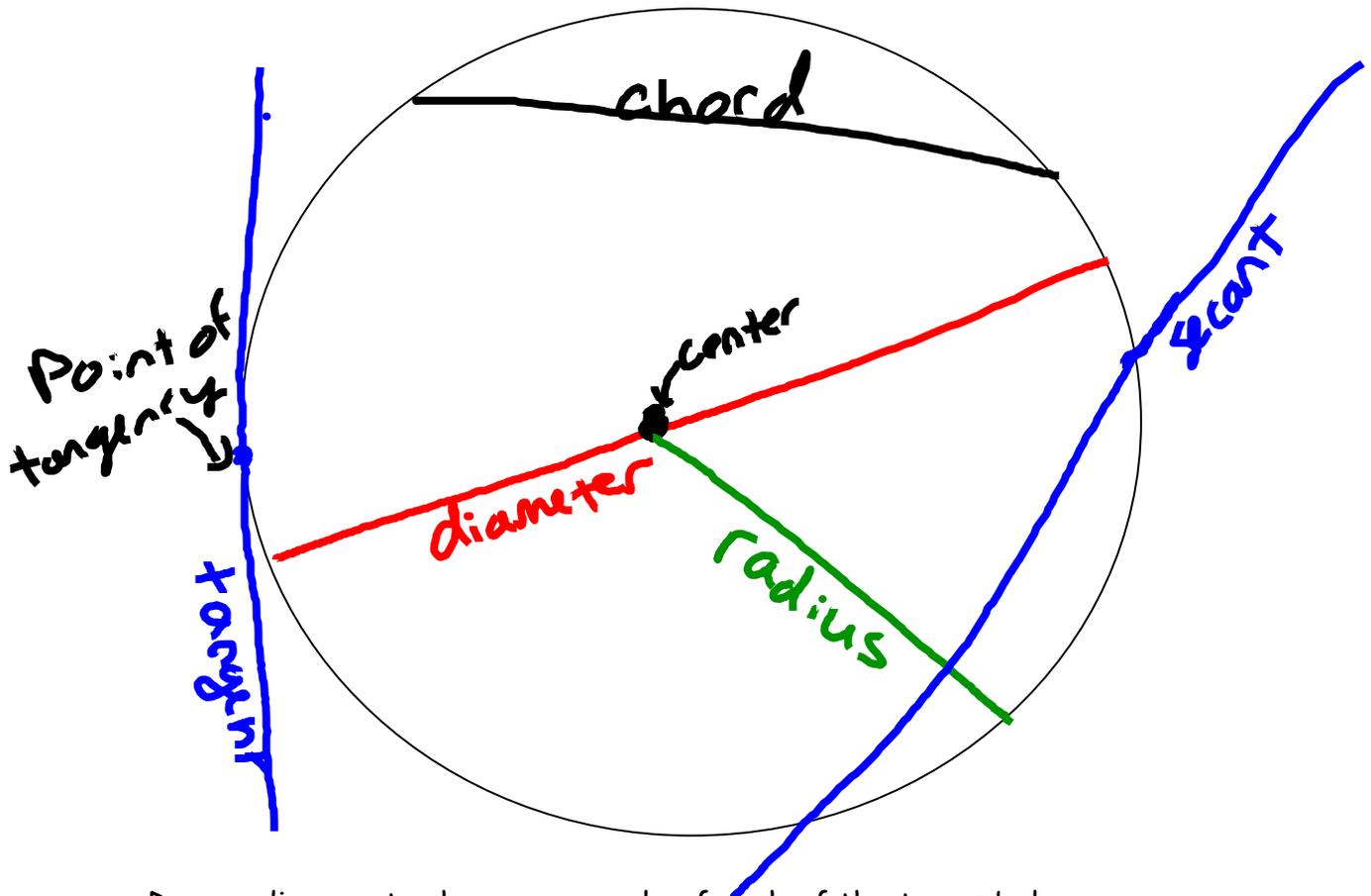
Use the following circle to draw in an example of each term listed below:

Center  
Diameter

Radius  
Tangent

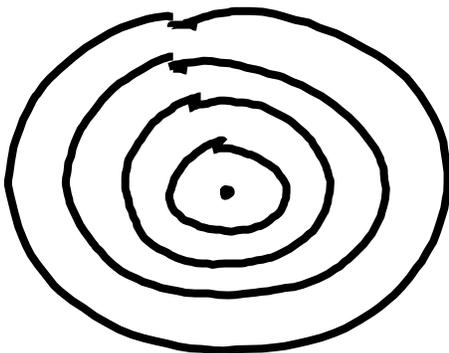
Chord  
Point of tangency

Secant

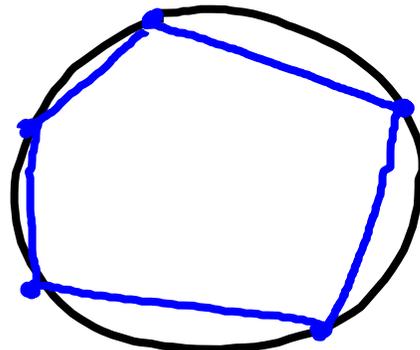


Draw a diagram to show an example of each of the terms below:

Concentric circles



Inscribed polygon



Try the following as practice:

1) Name three radii

$\overline{OR}$ ,  $\overline{OT}$ ,  $\overline{OL}$

2) Name a diameter

$\overline{RL}$

3) Name two chords

$\overline{RL}$ ,  $\overline{SR}$

4) Name a secant

$\overleftrightarrow{SR}$

5) Why is TK not a chord?

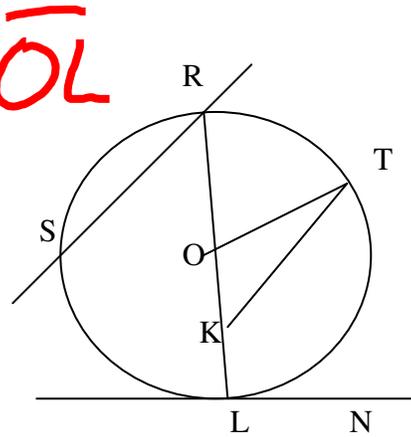
K is not on circle

6) Name a tangent

$\overleftrightarrow{LN}$

7) What name do we give to L?

pt. of tangency



where O is the center