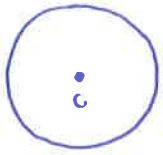
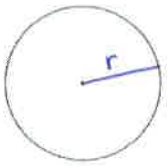
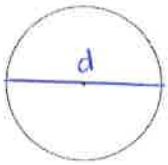
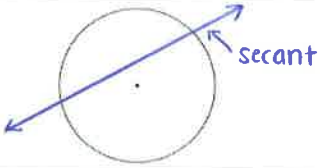
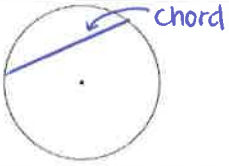
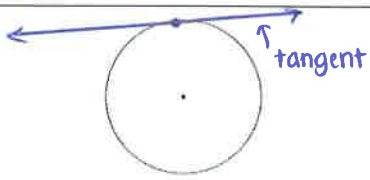
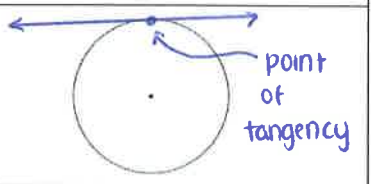
Geometry H
10.1 Introduction

Name: Key
Date: _____ Period: _____

Use pages 651 – 653 of your Geometry textbook to help you fill out the vocab chart below.

Vocabulary Term	Definition	Example/sketch/notation
Circle	the set of all points in a plane that are equidistant from a point called the center of the circle	
Radius	a segment whose endpoints are the center and any point on the circle	
Diameter	a chord that contains the center of the circle	
Secant	a line that intersects a circle in two points	
Chord	a segment whose endpoints are on a circle	
Tangent	a line in the plane of the circle that intersects the circle in exactly one point	
Point of Tangency	the point where the tangent line meets the circle	

Use the vocabulary chart above to complete the following.

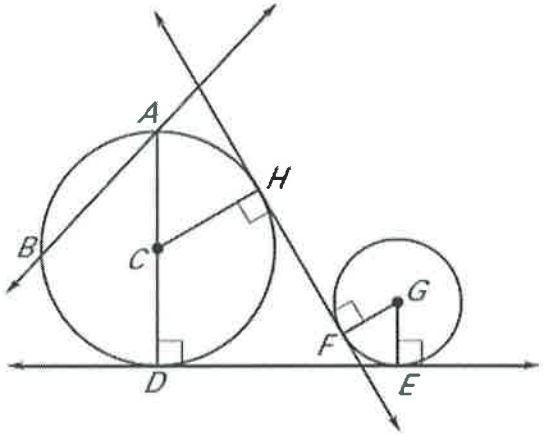
1. The interior of a circle is the set of all points inside the circle.
2. A secant is a line that intersects a circle at two points.
3. Is a diameter a chord? Why or why not? Yes, because a chord is a segment and so is the diameter. The diameter is a special type of chord that contains the center

4. What is the difference between a chord and a secant? A chord is a segment so it never goes outside the edge of the circle. A secant is a line so it passes through and extends past the outside edge of the circle

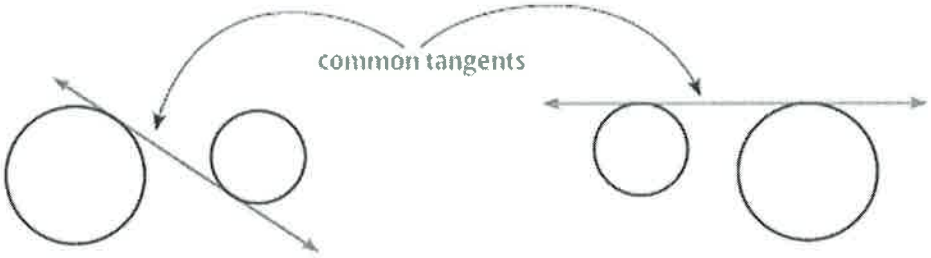
Match the notation with the term that best describes it.

5. D E
6. $\overleftrightarrow{DE}$ F
7. $\overline{CD}$ D
8. $\overline{AB}$ B
9. C A
10. $\overleftrightarrow{AB}$ G
11. $\overline{AD}$ C

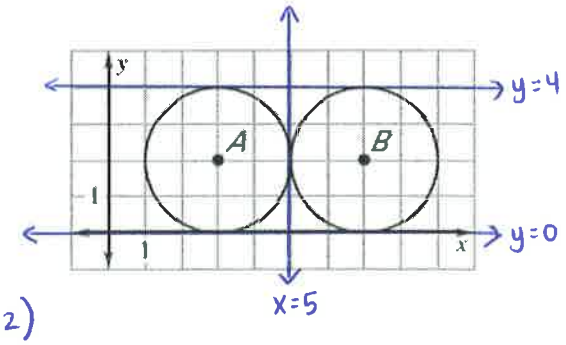
A. Center
B. Chord
C. Diameter
D. Radius
E. Point of tangency
F. Tangent
G. Secant



A line, ray, or segment that is tangent to two coplanar circles is called a **common tangent**.



Use the diagram below to find the following lengths.



12. What are the diameter and radius of $\odot A$?
    4 2
13. What are the diameter and radius of $\odot B$?
    4 2
14. What can you conclude about $\odot A$ and $\odot B$?
    They are ≅ circles
15. What is the point of intersection of $\odot A$ and $\odot B$? (5,2)
16. Draw all common tangents to $\odot A$ and $\odot B$. Write the equations of the tangent lines.
    x=5, y=4, y=0

If you need extra examples of the material covered in questions 1 – 16, look at Examples 1 – 3 on pages 651 – 653 of your Geometry textbook ☺