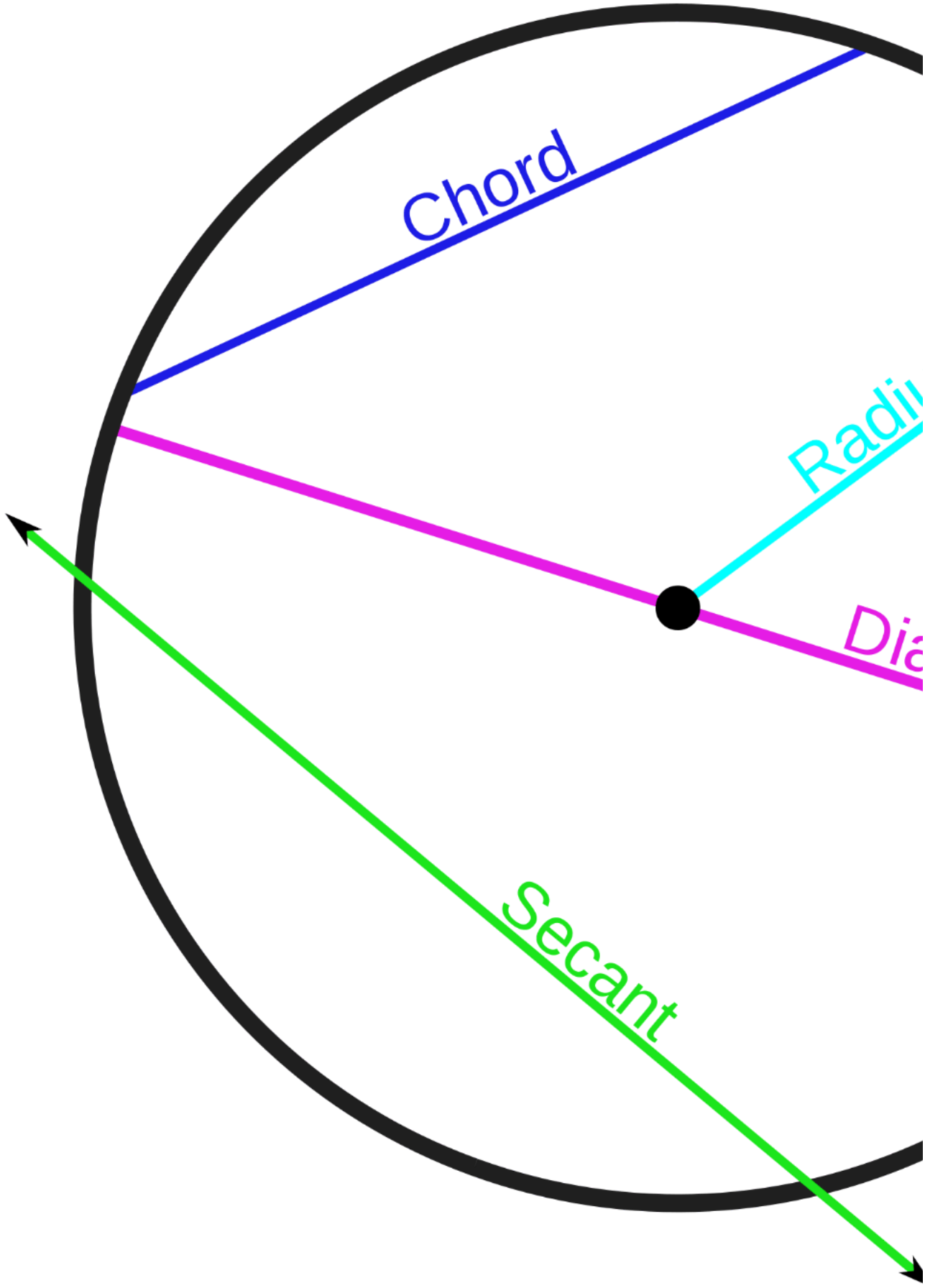
NCERT Class 9 Solutions: Circles (Chapter 10) Exercise 10.3 – Part 1

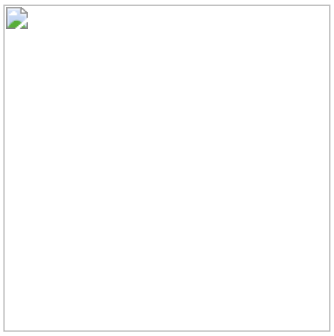


Q-1 Draw different pairs of circles. How many points does each pair have in common? What is the maximum number of common points?

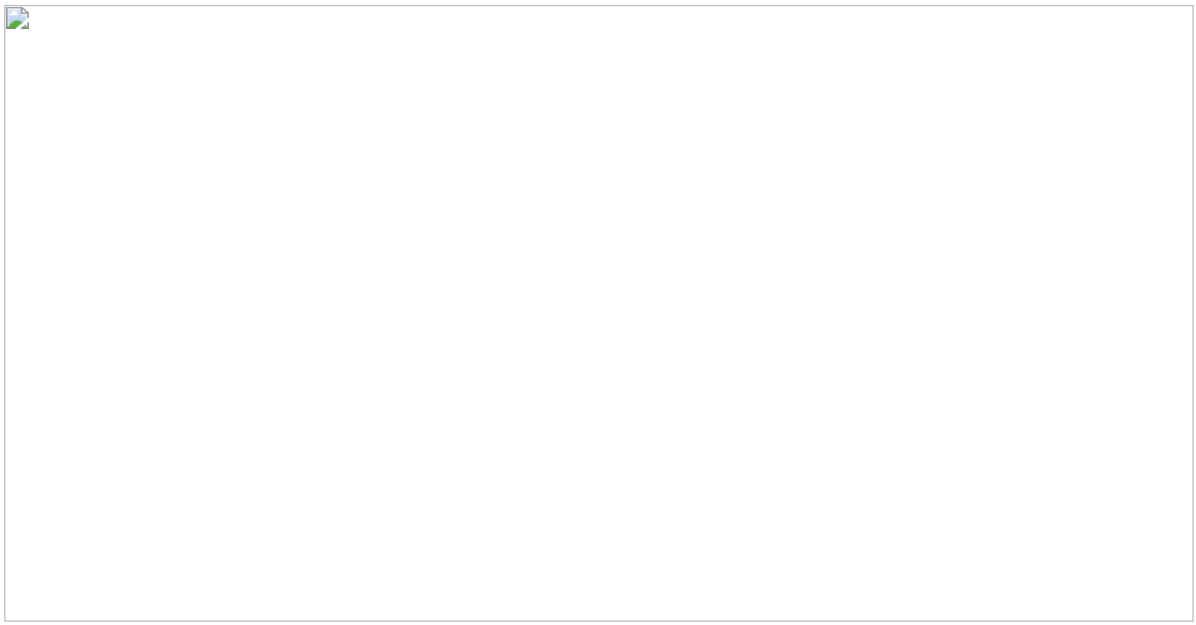
Solution:

1. No common point.

1. No point common

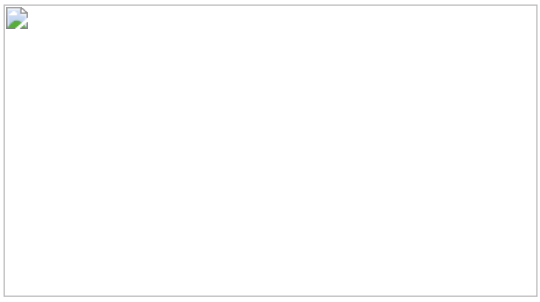


1. One point P is common

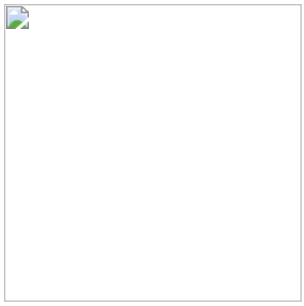


1. One point P is common

1. Two point P and Q are common



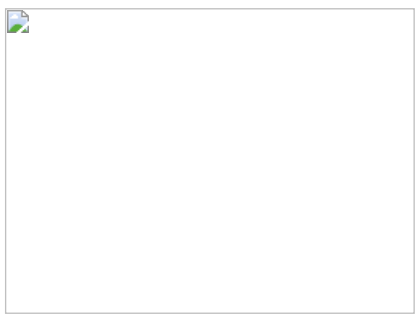
1. Infinite number of common points between two congruent and overlapping circles



Therefore there can be infinite such points

Q-2 Suppose you are given a circle. Give a construction to find its centre.

Solution:



Key idea: The key idea for solving this problems is to realize that the perpendicular bisector of chords of the circle pass through the center. So if we draw two perpendicular bisectors of two distinct chords they will intersect at the center of the circle. (The line joining the center and perpendicular to the chord, bisects the chord)

Following steps can be used to complete the construction:

- Step 1: Drawn the circle
- Step 2: EF and GH are two chords
- Step 3: Draw the perpendicular bisectors of the chords EF and GH.

The point of intersection of two perpendicular bisector is the center of the circle.