

Exercise 10.1

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1. Fill in the blanks:

- (i) The common point of tangent and the circle is called _____.
- (ii) A circle may have _____ parallel tangents.
- (iii) A tangent to a circle intersects it in _____ point.
- (iv) A line intersecting a circle in two points is called a _____.
- (v) The angle between tangent at a point P on circle and radius through the point is _____.

Solution:

- (i) The common point of tangent and the circle is called point of contact.
- (ii) A circle may have two parallel tangents.
- (iii) A tangent to a circle intersects it in one point.
- (iv) A line intersecting a circle in two points is called a secant.
- (v) The angle between tangent at a point P on circle and radius through the point is 90° .

2. How many tangents can a circle have?

Solution:

A tangent is defined as a line intersecting the circle in one point. Since, there are infinite number of points on the circle, a circle can have many (infinite) tangents.