

**CLASS – 10**

**MATHEMATICS**

**Chapter – 10**

**CIRCLES**

**Part – 2**

**EXERCISE 10.1**

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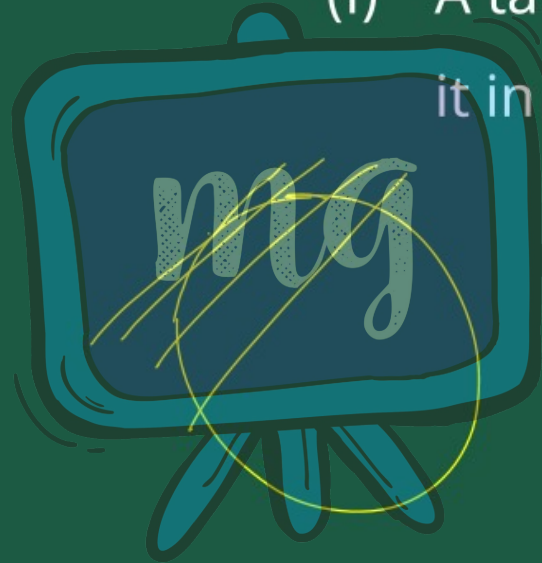
## EXERCISE 10.1

1. How many tangents can a circle have?

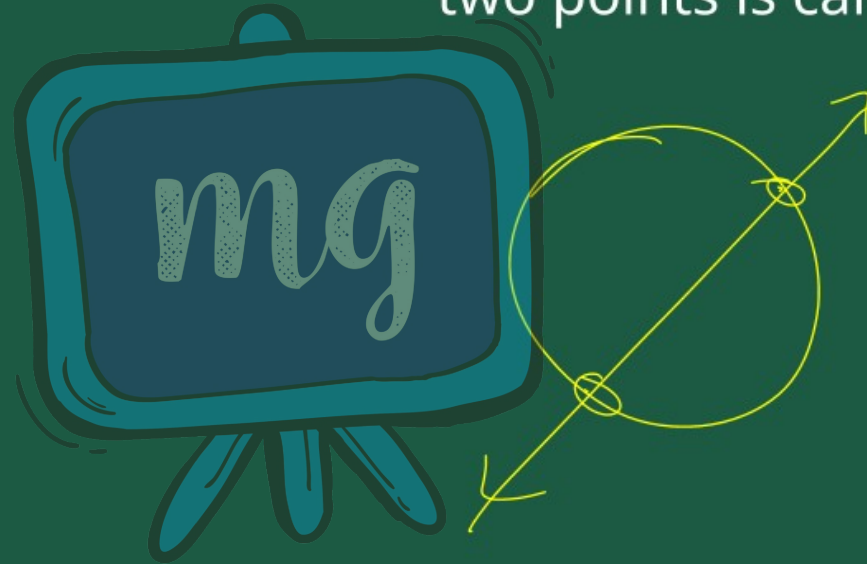


2. Fill in the blanks :

(i) A tangent to a circle intersects  
it in *one* point (s).



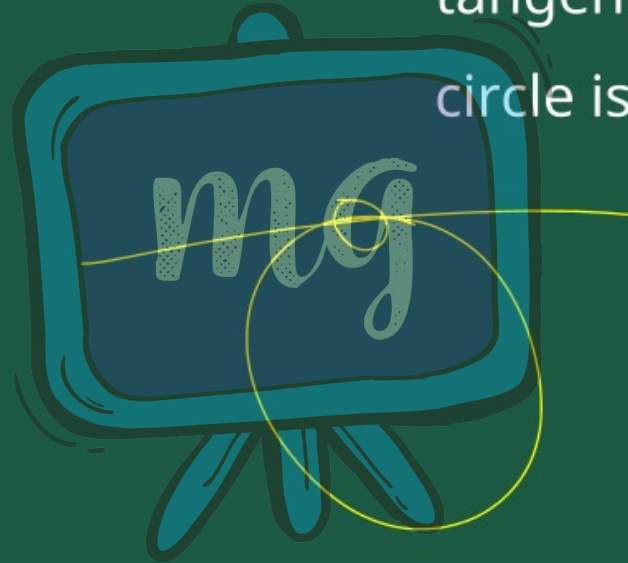
(ii) A line intersecting a circle in two points is called a *Secant*.



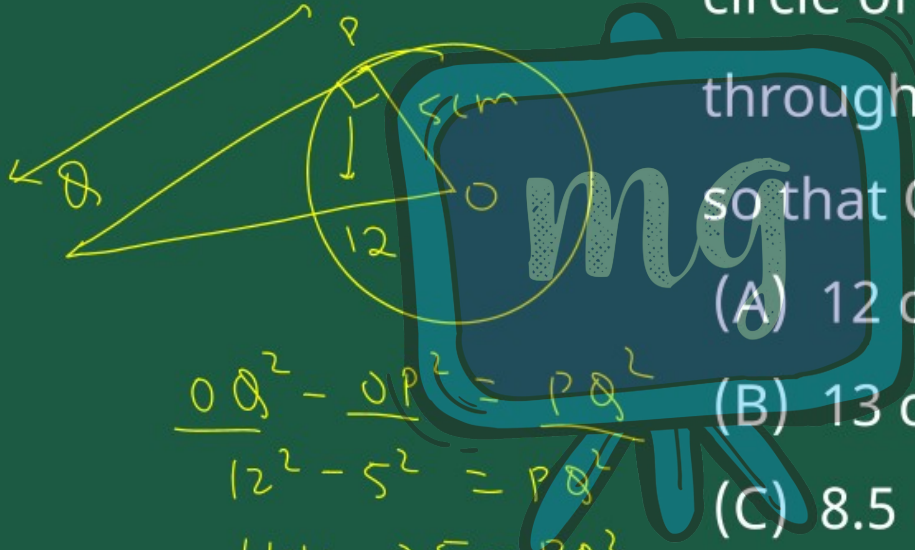
(iii) A circle can have *two* parallel tangents at the most.



(iv) The common point of a tangent to a circle and the circle is called *point of contact*.



3. A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that OQ = 12 cm. Length PQ is :



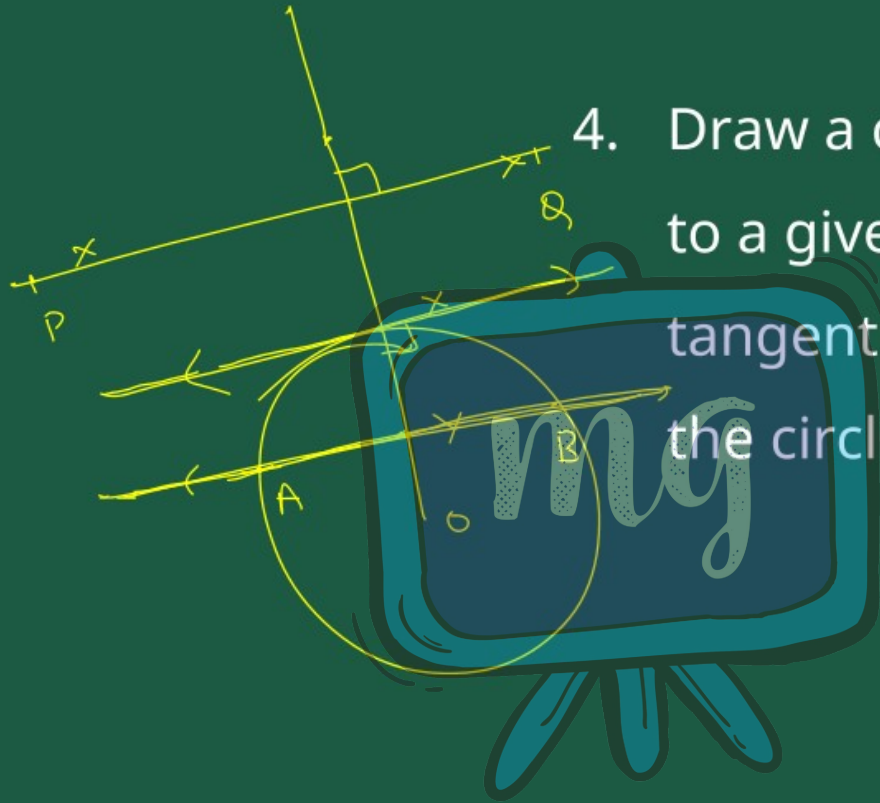
(A) 12 cm

(B) 13 cm

(C) 8.5 cm

~~(D)  $\sqrt{119}$  cm~~

$$\begin{aligned} OQ^2 - OP^2 &= PQ^2 \\ 12^2 - 5^2 &= PQ^2 \\ 144 - 25 &= PQ^2 \\ 119 &= PQ^2 \\ \sqrt{119} &= PQ \end{aligned}$$



4. Draw a circle and two lines parallel to a given line such that one is a tangent and the other, a secant to the circle.