ASSIGNMENT 3

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QUESTION

Construction/Q 2.18

Draw a circle with centre B and radius 6. If C be a point 10 units away from its centre, construct the pair of tangents AC and CD to the circle.

SOLUTION

In any circle tangent is perpendicular to the radius. so, in $\triangle ABC, AC \perp AB, a = 10$ and $c = 6$.

by using pythagoras theorem,

$$b = \sqrt{a^2 - c^2} = \sqrt{10^2 - 6^2} = \sqrt{8^2} = 8$$

$$(0.0.1)$$

length of tangents is,

$$AC = CD = b = 8 \qquad (0.0.2)$$
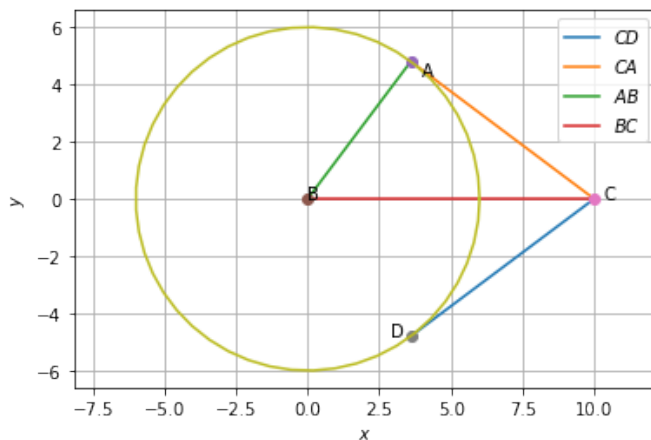

Fig. 1