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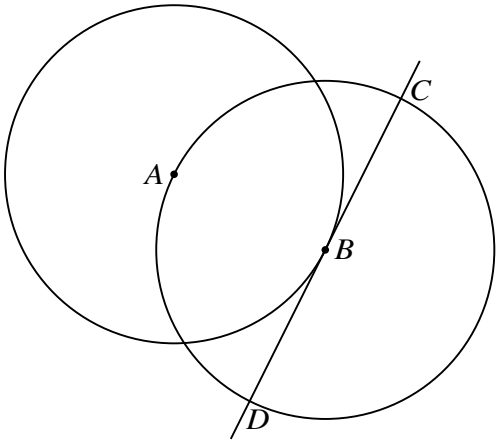

The diagram shows a circle with centre A passing through the point B. A second circle has centre B and passes through A. The tangent at B to the first circle intersects the second circle at C and D.

The coordinates of A are $(-1, 4)$ and the coordinates of B are $(3, 2)$.

(a) Find the equation of the tangent CBD. [2]

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(b) Find an equation of the circle with centre B. [3]

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(c) Find, by calculation, the x-coordinates of C and D. [3]

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