

AQA, OCR, Edexcel

GCSE

GCSE Maths

Circles and Tangents Exam Answers

Name:

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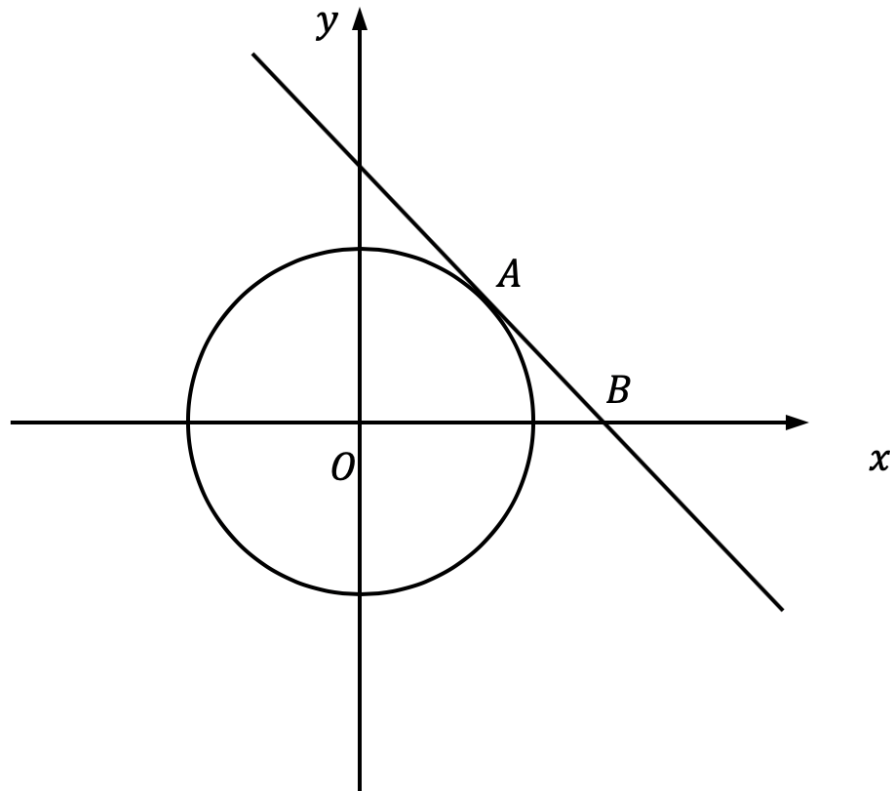
Mathsmadeeasy.co.uk

Total Marks: /17

Circles and Tangents Exam Questions

1. Consider the circle with equation $x^2 + y^2 = 13$ sketched below.
The point A Lies on the circle and has a y-coordinate of 2.
The tangent line to the circle at A intersects the x -axis at the point B.

Not Drawn
accurately



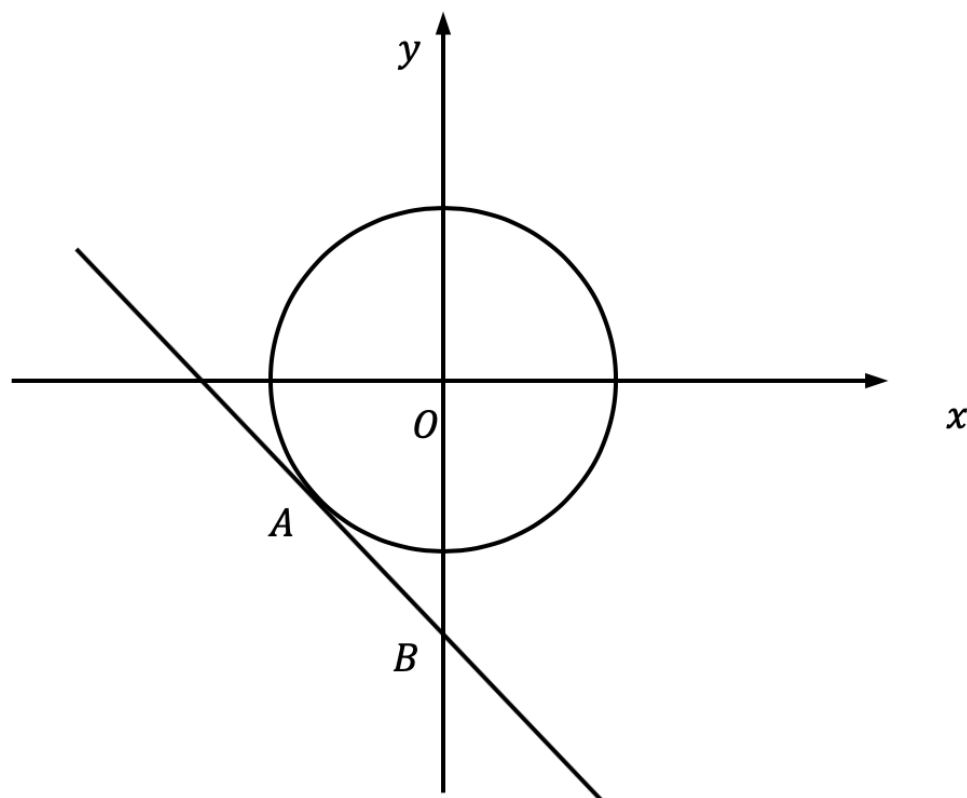
Find the coordinates of B.

The coordinates of B are $\left(\frac{13}{3}, 0\right)$.

(5 Marks)

2. Consider the circle with equation $x^2 + y^2 = 25$ sketched below.
The point A Lies on the circle and has a y-coordinate of -4.
The tangent line to the circle at A intersects the y -axis at the point B.

Not Drawn
accurately



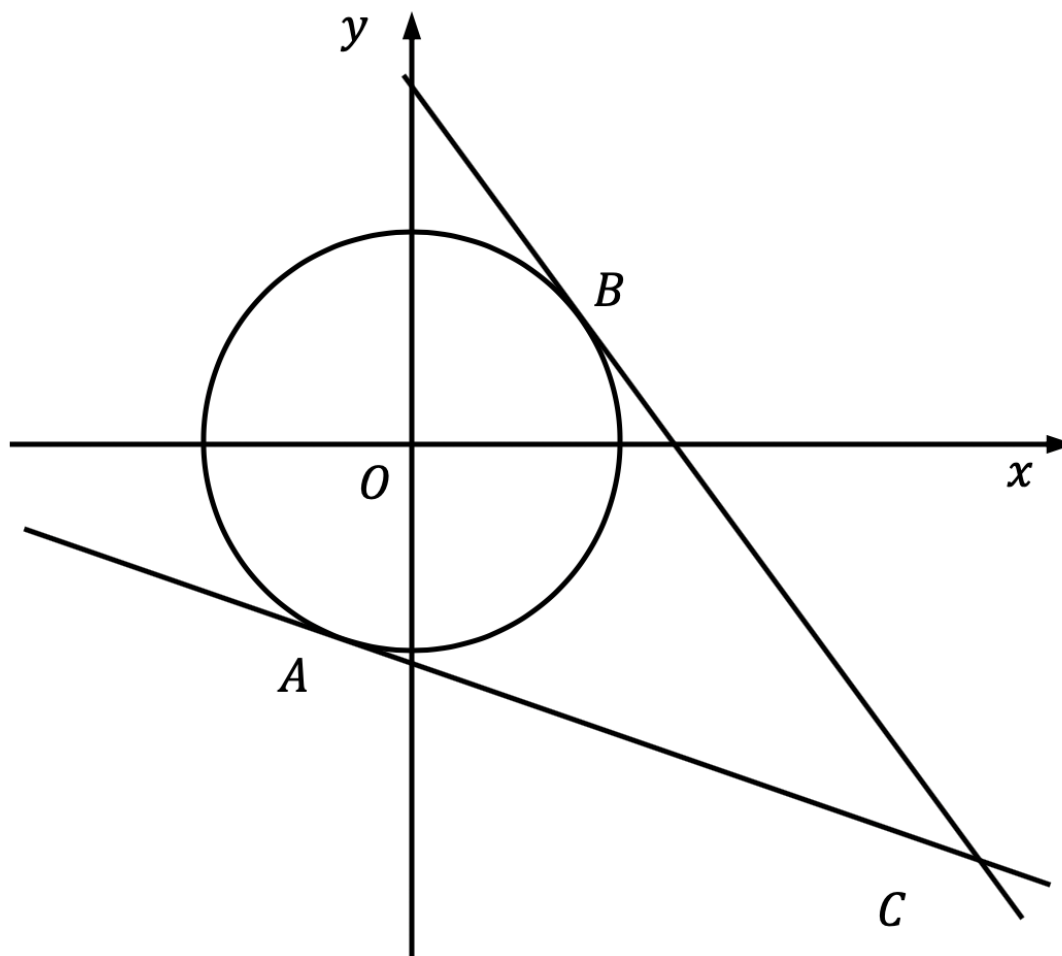
Work out the coordinates of B.

The coordinates of B are $\left(0, -\frac{25}{4}\right)$.

(5 Marks)

3. Consider the circle with equation $x^2 + y^2 = 20$ sketched below.
The point A lies on the circle and has a y -coordinate of -4 .
The point B also lies on the circle and has an x -coordinate of $\sqrt{10}$.
The tangent line at A intersects the tangent line at B at point C.

Not Drawn
accurately



Work out the coordinates of C.

The coordinates of C are $((10 + 4\sqrt{10}), (-10 + 2\sqrt{10}))$.

(7 marks)