

AQA, OCR, Edexcel

GCSE

GCSE Maths

Circles and Tangents Exam
Answers

Name:

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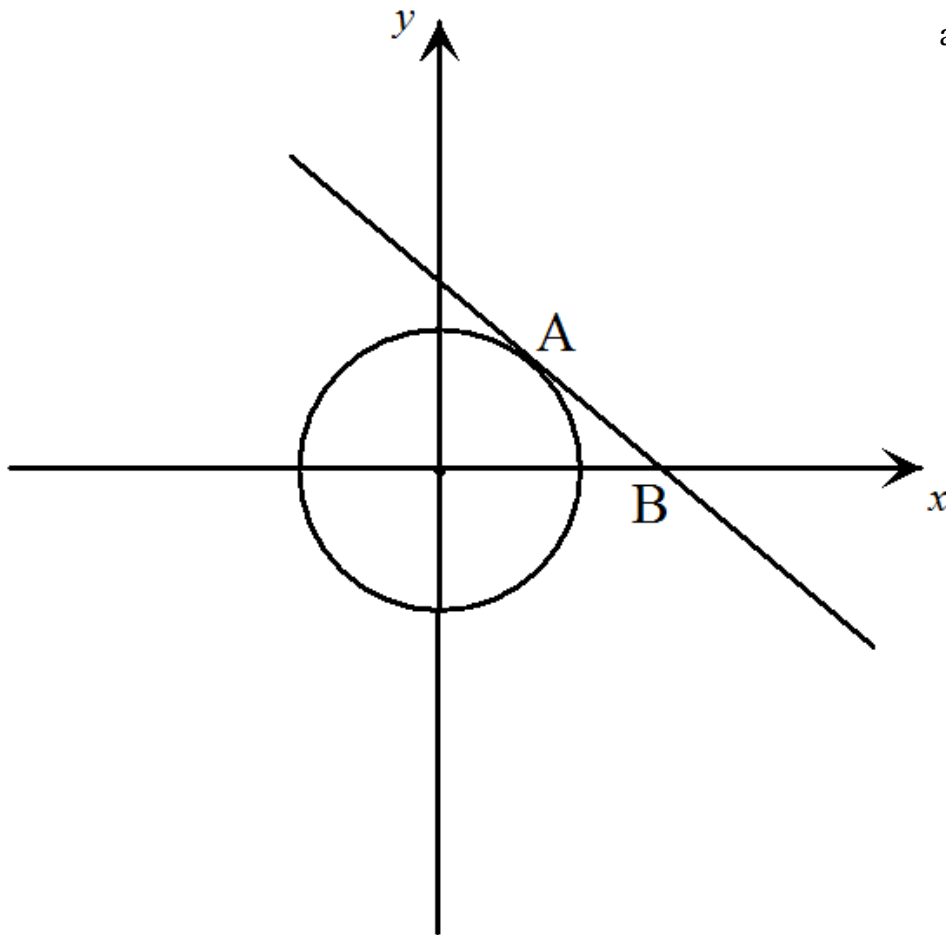
Mathsmadeeasy.co.uk

Total Marks:

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



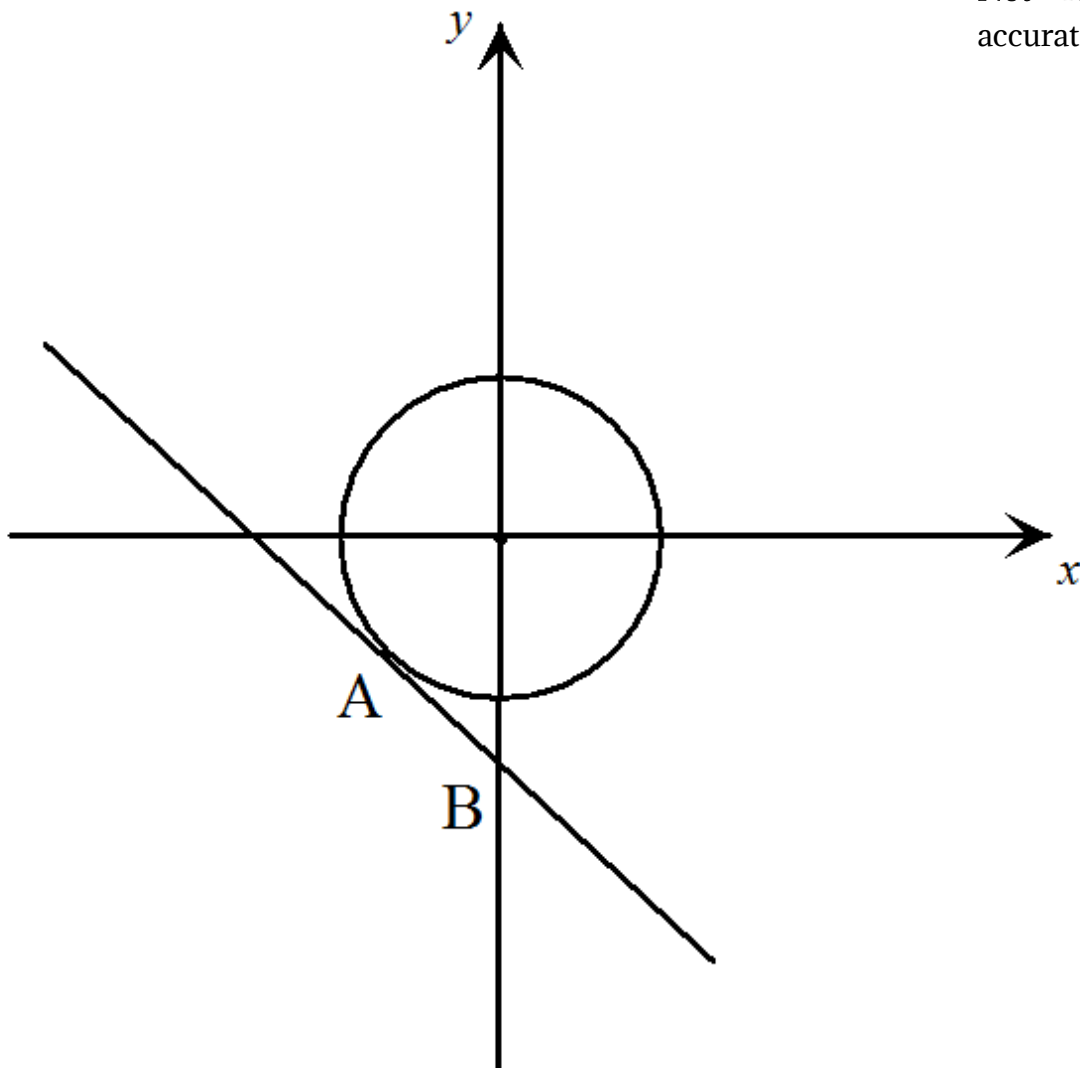
Find the coordinates of B.

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

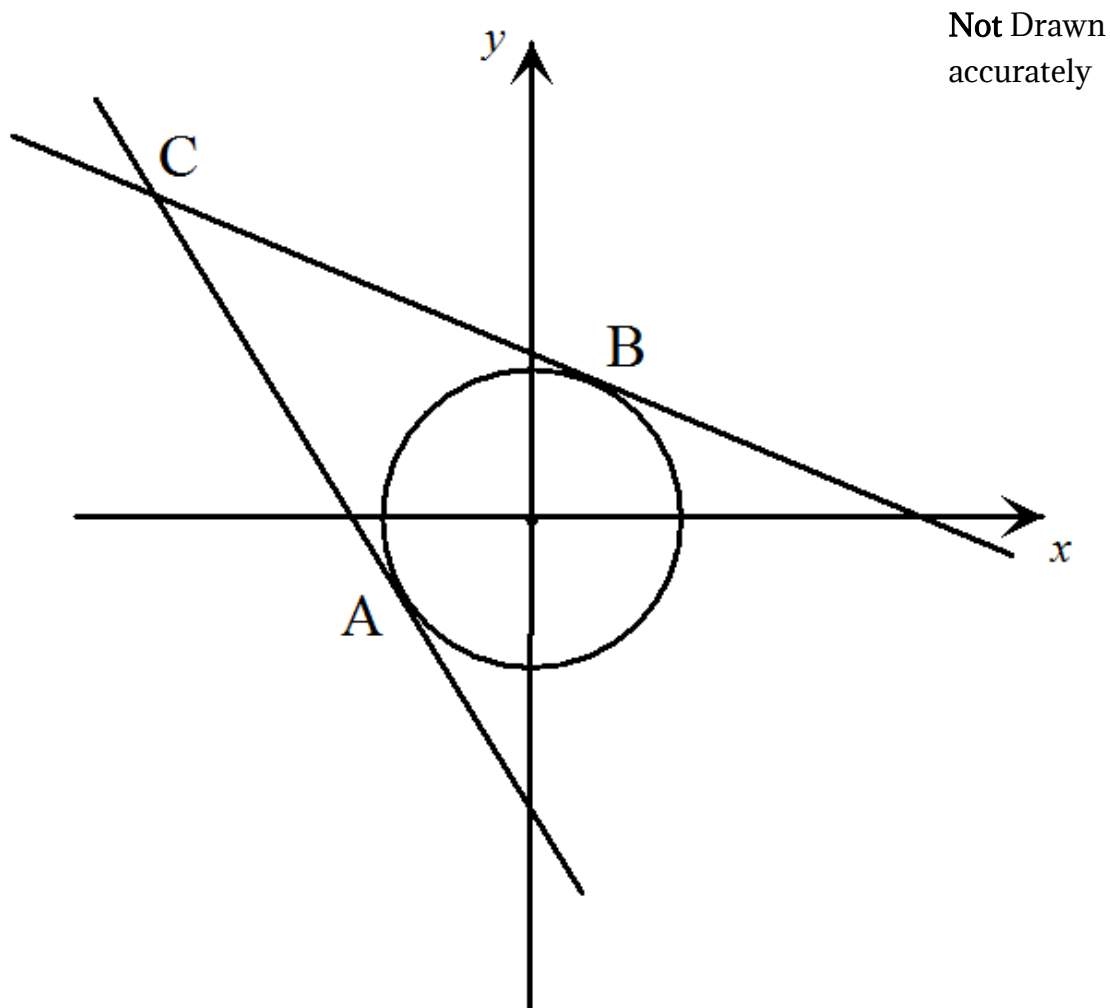


Work out the coordinates of B.

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

(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.



Work out the coordinates of C.

The coordinates of C are $\left(\frac{2}{3}(5 + 2\sqrt{10}), \frac{2}{3}(\sqrt{10} - 5)\right)$.

(7 marks)