

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

## Circles and Tangents Questions

Name:

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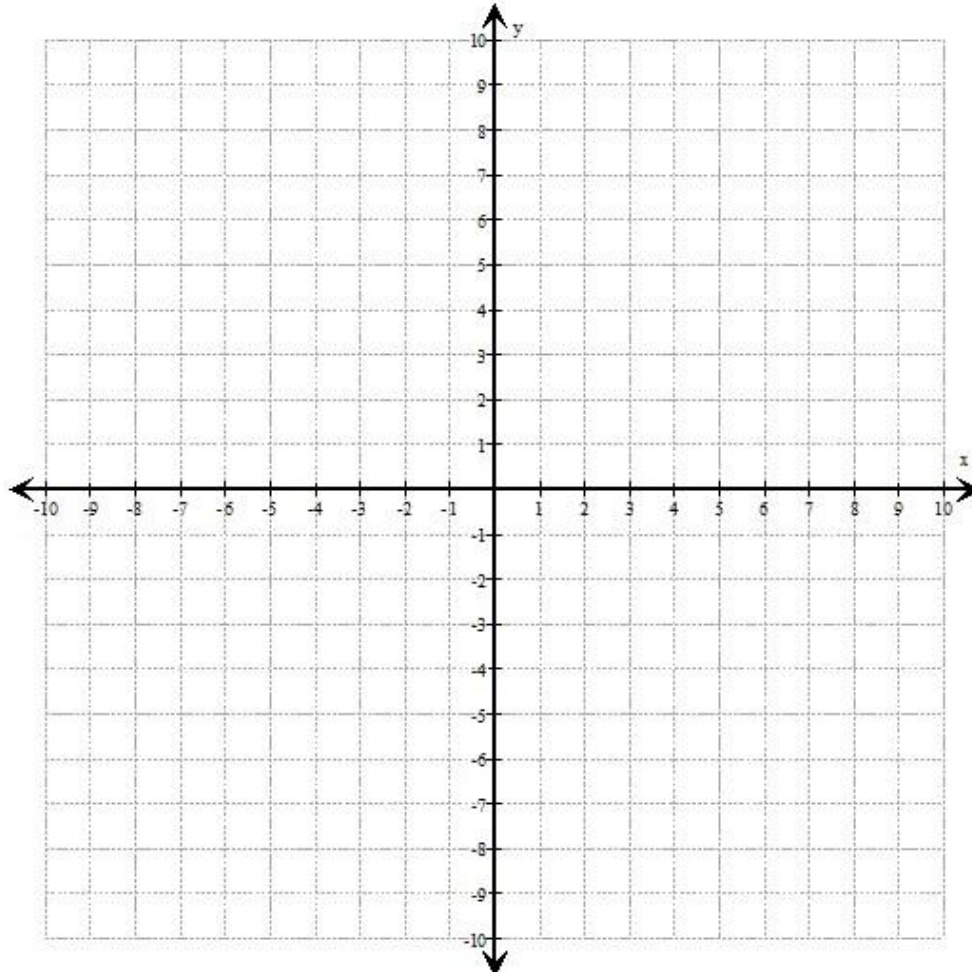
Total Marks: /18

## Circles and tangents

1. Answer the following questions on tangents.

a. On the axis below sketch the graph of

$$x^2 + y^2 = 100.$$

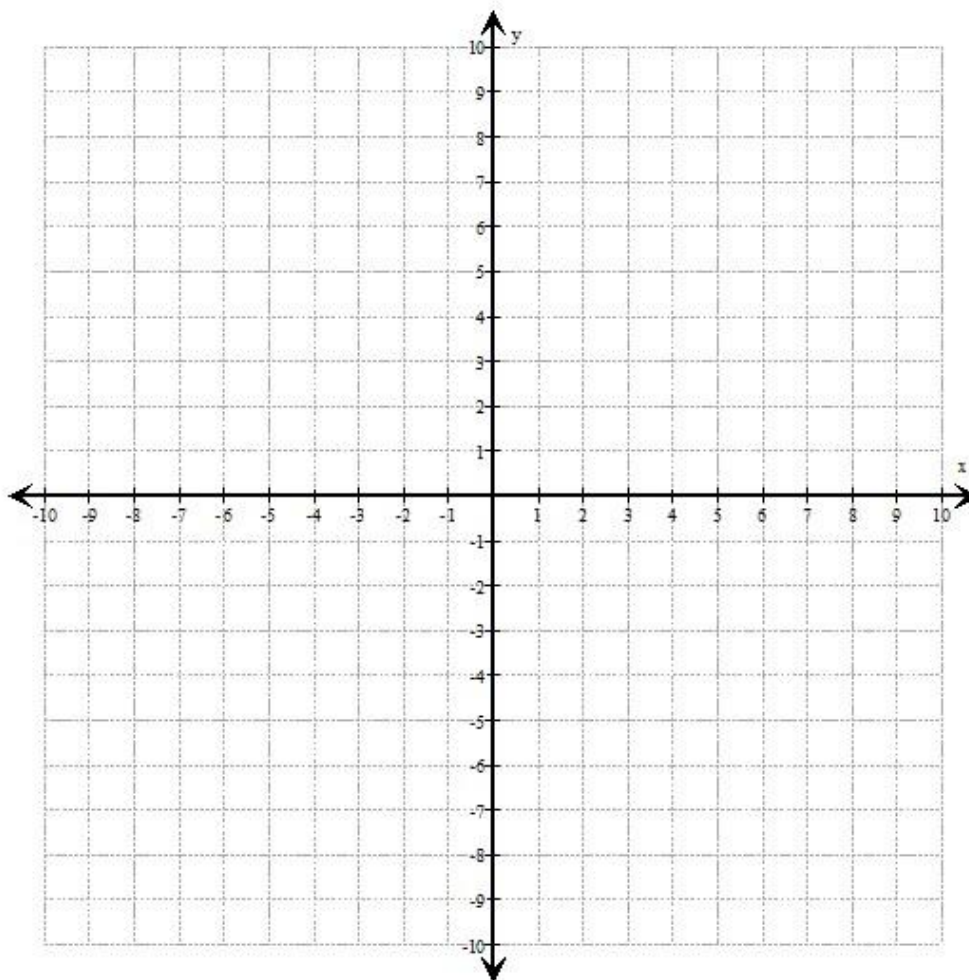


b. Use your sketch from part (a) to help you find the equation of the tangent to  $x^2 + y^2 = 100$  at the point  $(-6, -8)$ .

(4 Marks)

2. On the axis below sketch the graph of

$$x^2 + y^2 = 49.$$



- a. Use your sketch of  $x^2 + y^2 = 49$  to help you find the equation of the tangent to  $x^2 + y^2 = 49$  at the point  $(6, \sqrt{13})$ .

(4 Marks)

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3. Find the equation of the tangent to  $x^2 + y^2 = 45$  at the point  $(-3,6)$ .

(3 Marks)

4. Find the equation of the tangent to  $x^2 + y^2 = 113$  at the point  $(-8,-7)$ .

(3 Marks)

5. Find the equation of the tangent to  $x^2 + y^2 = 50$  at the point  $(2\sqrt{5}, -\sqrt{30})$ .

(4 Marks)