



Simultaneous Equations Exam Questions (from OCR 4721)

Q1, (Jun 2010, Q7)

Solve the simultaneous equations

$$x + 2y - 6 = 0, \quad 2x^2 + y^2 = 57. \quad [6]$$

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Q2, (Jun 2011, Q4)

Solve the simultaneous equations

$$y = 2(x - 2)^2, \quad 3x + y = 26. \quad [5]$$

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Q3, (Jan 2013, Q4)

(i) Solve the simultaneous equations

$$y = 2x^2 - 3x - 5, \quad 10x + 2y + 11 = 0. \quad [5]$$

(ii) What can you deduce from the answer to part (i) about the curve  $y = 2x^2 - 3x - 5$  and the line  $10x + 2y + 11 = 0$ ?

[1]

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Q4, (Jun 2015, Q6)

Solve the simultaneous equations

$$2x + y - 5 = 0, \quad x^2 - y^2 = 3. \quad [5]$$

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Q5, (Jun 2016, Q3)

Solve the simultaneous equations

$$x^2 + y^2 = 34, \quad 3x - y + 4 = 0. \quad [5]$$

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