



CHEMISTRY ONLINE
— TUITION —

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PURE MATH

ALGEBRA AND FUNCTION

Level & Board	EDEXCEL (A-LEVEL)
TOPIC:	QUADRATICS
PAPER TYPE:	QUESTION PAPER 3
TOTAL QUESTIONS	8
TOTAL MARKS	40

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Questions

Q1. Given that the equation $2qx^2 + qx - 1 = 0$, where q is a constant, has no real roots,

(a) Show that $q^2 + 8q < 0$.

(2)

(b) Hence find the set of possible values of q .

(3)

(Total for question = 5 marks)

Q2.

Find the range of the values of k for which the equation $kx^2 + k = 8x - 2kx$ has two distinct roots?

(7)

(Total for question = 7 marks)

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Q3.

Find the values of constants a and b when $x - 2$ and $x + 3$ both are the factors of expression $x^3 + ax^2 + bx - 12$

(4)

(Total for question = 4 marks)

Q4.

The quadratic equation $x^2 - 4x - 1 = 2p(x - 5)$, where p is a constant, has two equal roots. Calculate the possible values of p .

(5)

(Total for question = 5 marks)

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Q5.

Write $x^2 - 8x + 25$ in the form $(x - a)^2 + b$.

(5)

(Total for question = 5 marks)

Q6.

How do you express $-2x^2 + 12x + 2$ in the form of $a(x + b)^2 + C$?

(5)

(Total for question = 5 marks)

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Q7.

How do you express $4 - 3x - x^2$ in the form of $a - (x + b)^2$?

(4)

(Total for question = 4 marks)

Q8.

How do you express $8 + 2x - x^2$ in the form of $a - b(x + c)^2$?

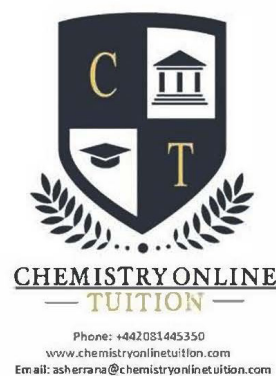
(5)

(Total for question = 5 marks)

I am Sorry !!!!!



DR. ASHAR RANA



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- CIE & EDEXCEL Examiner since 2015
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