



Phone: +442081445350

www.chemistryonlinetuition.com

Email: asherrana@chemistryonlinetuition.com

PURE MATH

ALGEBRA AND FUNCTION

| | |
|-----------------|--------------------|
| Level & Board | EDEXCEL (A-LEVEL) |
| TOPIC: | DIFFERENTIATION |
| PAPER TYPE: | QUESTION PAPER - 2 |
| TOTAL QUESTIONS | 8 |
| TOTAL MARKS | 43 |

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Questions**Q1.**

A curve has equation

$$y = \sqrt{4x - x^2}$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(3)

(b) Hence find the exact range of value of x for which the curve is increasing.

(2)

(Total for question = 5 marks)

Q2.

A curve has equation

$$y = \ln$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(3)

(b) Hence find the exact range of value of x for which the curve is increasing.

(3)

(Total for question = 6 marks)

I am Sorry !!!!!

Q3.

A curve has equation

$$y = 2e^{0.5x}$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(2)

(b) Hence find the exact range of value of x for which the curve is increasing.

(3)

(Total for question = 5 marks)

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Q4.

A curve has equation

$$y = \ln(|x| + 1)$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(3)

(b) Hence find the exact range of value of x for which the curve is increasing.

(3)

(Total for question = 6 marks)

Q5.

A curve has equation

$$y = x^2 + \sin(x)$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(2)

(b) Hence find the exact range of value of x for which the curve is increasing.

(2)

(Total for question = 4 marks)

Q6.

A curve has equation

$$y = \frac{x^2 + 2x + 1}{x + 2}$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(4)

(b) Hence find the exact range of value of x for which the curve is increasing.

(2)

(Total for question = 6 marks)

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Q7.

A curve has equation

$$y = x^3 - 3x^2 + 2x + 4$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(2)

(b) Hence find the exact range of value of x for which the curve is increasing.

(2)

(Total for question = 4 marks)

Q8.

A curve has equation

$$y = |x - 2|$$

(a) Find, in simplest form, $\frac{dy}{dx}$

(4)

(b) Hence find the exact range of value of x for which the curve is increasing.

(3)

(Total for question = 7 marks)

I am Sorry !!!!!



DR. ASHAR RANA



- Founder & CEO of Chemistry Online Tuition Ltd.
- Tutoring students in UK and worldwide since 2008
- CIE & EDEXCEL Examiner since 2015
- Chemistry, Physics, and Math's Tutor

CONTACT INFORMATION FOR CHEMISTRY ONLINE TUITION

- UK Contact: 02081445350
 - International Phone/WhatsApp: 00442081445350
 - Website: www.chemistryonlinetuition.com
 - Email: asherrana@chemistryonlinetuition.com
- Address: 210-Old Brompton Road, London SW5 OBS, UK