

H1 Mathematics

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Contents

18 Graphing Techniques	2
19 Exponential and Logarithmic Functions	3
20 Equations and Inequalities	4
21 Differentiation Techniques	5
22 Application of Differentiation (I)	6
23 Application of Differentiation (II)	7
24 Integration Techniques	8
25 Application of Integration - Area	9
26 Permutation and Combination	10
27 Probability	11
28 Binomial Distribution	12
29 Normal Distribution	13
30 Sampling	14
31 Hypothesis Testing	15
32 Correlation and Regression	16

Chapter 18

Graphing Techniques

Chapter 19

Exponential and Logarithmic Functions

1. Given that $\log_2 x = p$ and $\log_8 y = q$, express the following terms of p and/or q :

(a) $\log_2 xy$

Sol.

$$\log_8 y = q$$

$$\frac{\log_2 y}{\log_2 8} = q$$

$$\frac{\log_2 y}{3} = q$$

$$\log_2 y = 3q$$

$$\begin{aligned}\log_2 xy &= \log_2 x + \log_2 y \\ &= p + 3q\end{aligned}$$

(b) $\log_4 \frac{x}{y}$

(c) $\log_x 4y$

(d) x^2y

Chapter 20

Equations and Inequalities

Chapter 21

Differentiation Techniques

Chapter 22

Application of Differentiation (I)

Chapter 23

Application of Differentiation (II)

Chapter 24

Integration Techniques

Chapter 25

Application of Integration - Area

Chapter 26

Permutation and Combination

Chapter 27

Probability

Chapter 28

Binomial Distribution

Chapter 29

Normal Distribution

Chapter 30

Sampling

Chapter 31

Hypothesis Testing

Chapter 32

Correlation and Regression