

Modulus of Linear Function

Difficulty: Medium

Question Paper 2

Level	A Level
Subject	Maths Pure 3
Exam Board	CIE
Topic	Algebra
Sub-Topic	Modulus of Linear Function
Difficulty	Medium
Booklet	Question Paper 2

Time allowed: 39 minutes

Score: /28

Percentage: /100

Grade Boundaries:

A*	A	B	C	D	E
>90%	81%	70%	58%	46%	34%

Question 1

Solve the inequality $|x + 3a| > 2|x - 2a|$, where a is a positive constant. [4]

Question 2

Solve the inequality $|x - 3| > 2|x + 1|$. [4]

Question 3

Solve the inequality $|4x + 3| > |x|$.

[4]

Question 4

Find the set of values of x satisfying the inequality

$$|x + 2a| > 3|x - a|,$$

where a is a positive constant.

[4]

Question 5

Given that a is a positive constant, solve the inequality

$$|x - 3a| > |x - a|. \quad [4]$$

Question 6

Solve the inequality $2|x - 3| > |3x + 1|$. [4]

Question 7

Find the set of values of x satisfying the inequality $3|x - 1| < |2x + 1|$.

[4]