

Algebraic Fractions

Difficulty: Hard

Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Algebra and graphs
Sub-Topic	Algebraic Fractions
Paper	Paper 2
Difficulty	Hard
Booklet	Question Paper 1

Time allowed: 41 minutes

Score: /32

Percentage: /100

Grade Boundaries:

CIE IGCSE Maths (0580)

A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%

Question 1

Write as a single fraction in its simplest form.

$$\frac{5}{x-3} + \frac{3}{x+7} + \frac{1}{2} \quad [4]$$

Question 2

Write as a single fraction in its simplest form.

$$\frac{x+1}{x} - \frac{y-1}{y} \quad [3]$$

Question 3

Write as a single fraction in its simplest form.

(a) $\frac{x^2 - 3x}{x^2 - 9}$ [3]

(b) $\frac{3}{x-4} + \frac{2}{2x+5}$ [3]

Question 4

Simplify.

$\frac{x^3y + 2xy^3}{x^2y^2}$ [2]

Question 5

Write as a single fraction.

$$1 - \frac{2}{p} - \frac{3}{t}$$

[2]

Question 6

Simplify.

$$\frac{42np - 7n}{12pt - 2t + 18mp - 3m}$$

[4]

Question 7

Simplify.

$$\frac{4 + 10w}{8 - 50w^2}$$

[4]

Question 8

Write as a single fraction in its simplest form.

$$3 - \frac{t+2}{t-1}$$

[3]

Question 9

Write as a single fraction, in its simplest form.

$$\frac{1-x}{x} - \frac{2+x}{1-2x} \quad [4]$$