EXAM PAPERS PRACTICE

GCSE Edexcel Math 1MA1 Algebraic Fractions

Question Paper

"We will help you to achieve A Star "

Question 1

(a) Simplify fully $\dfrac{x^2 + 3x - 4}{2x^2 - 5x + 3}$

[3 marks]

Question 2

Simplify $\dfrac{x+1}{2} + \dfrac{x+3}{3}$

[3 marks]

Question 3

Simplify $\dfrac{3(x+1)}{(x+1)^2}$

[1 mark]

Question 4

(b) Write $\dfrac{4}{x+2} + \dfrac{3}{x-2}$ as a single fraction in its simplest form.

[3 marks]

Question 5

Simplify $\dfrac{4(x+5)}{x^2+2x-15}$

[2 marks]

Question 6

Write as a single fraction in its simplest form

$$\frac{2}{y+3} - \frac{1}{y-6}$$

[3 marks]

Question 7

Simplify fully $\dfrac{2x^2 - 5x + 3}{x^2 + 5x - 6}$

[3 marks]

Question 8

$2 - \dfrac{x + 2}{x - 3} - \dfrac{x - 6}{x + 3}$ can be written as a single fraction in the form $\dfrac{ax + b}{x^2 - 9}$

where a and b are integers.

Work out the value of a and the value of b.

[4 marks]

Question 9

Simplify fully $\dfrac{3x^2 - 8x - 3}{2x^2 - 6x}$

[3 marks]

Question 10

Write $\dfrac{5}{x-3} - \dfrac{4}{x+3}$ as a single fraction in its simplest form.

[3 marks]

Question 11

Simplify $\dfrac{x^2 - 9}{2x^2 + 5x - 3}$

[3 marks]

Question 12

(b) Write $\dfrac{x}{x-1} - \dfrac{x}{x+1}$ as a single fraction in its simplest form.

[3 marks]

Question 13

Write

$$4 - \left[(x+3) \div \frac{x^2 + 5x + 6}{x-2} \right]$$

as a single fraction in its simplest form.
You must show your working.

[4 marks]

Question 14

(a) Simplify fully $\dfrac{3 - x}{3x^2 - 5x - 12}$

[2 marks]

Question 15

Show that $\dfrac{1}{6x^2 + 7x - 5} \div \dfrac{1}{4x^2 - 1}$ simplifies to $\dfrac{ax + b}{cx + d}$ where a, b, c and d are integers.

[3 marks]