

Equations with Algebraic Fractions

For Pearson Edexcel GCSE Mathematics (1MA1) • Higher tier

Name _____

Total marks: **28**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Solve $\frac{6}{x-2} = 3$

$x =$
(2)

(Total for Question 1 is 2 marks)

2 Solve $\frac{x+3}{2} = \frac{6}{x-1}$

.....
(3)

(Total for Question 2 is 3 marks)

3 Solve $\frac{3}{x+2} + \frac{2}{x} = 1$

.....
(4)

(Total for Question 3 is 4 marks)

4 Solve $\frac{2}{x-3} + \frac{4}{x+1} = 1$

.....
(5)

(Total for Question 4 is 5 marks)

5 Solve $\frac{3}{x-1} - \frac{1}{x+2} = \frac{1}{2}$
Give your answers correct to 2 decimal places.

.....
(5)

(Total for Question 5 is 5 marks)

6 Solve $\frac{x}{x-1} + \frac{2}{x+3} = 3$

Give your answers in the form $\frac{a \pm \sqrt{b}}{c}$ where a , b and c are integers.

.....
(4)

(Total for Question 6 is 4 marks)

7 Solve $\frac{2}{x-4} + \frac{1}{x+3} = 1$

Give your answers in the form $p \pm q\sqrt{2}$ where p and q are integers.

.....
(5)

(Total for Question 7 is 5 marks)
