

Equations with Algebraic Fractions

For AQA GCSE Mathematics (8300) • Higher tier

Name _____

Total marks: **28**

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

1 Solve $\frac{5}{x+1} = 2$

[2 marks]

Answer $x =$ _____

2 Solve $\frac{12}{x-2} = x+2$

[3 marks]

Answer _____

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

[4 marks]

Answer _____

- 4 (a) Show that $\frac{4}{x-3} + \frac{1}{x} = 1$ can be written as $x^2 - 8x + 3 = 0$

[3 marks]

- (b) Hence solve $\frac{4}{x-3} + \frac{1}{x} = 1$
Give your answers to 2 decimal places.

[2 marks]

Answer _____

- 5 Solve $\frac{2x+3}{x-1} = \frac{2x-1}{x+2}$
You must show your working.

[4 marks]

Answer $x =$ _____

- 6** Solve $\frac{x}{x+2} - \frac{1}{x} = \frac{1}{3}$
Give your solutions to 2 decimal places.
You must show your working.

[5 marks]

Answer _____

- 7** Solve $\frac{x+2}{x-1} + \frac{3}{x} = 4$
Give your solutions to 2 decimal places.
You must show your working.

[5 marks]

Answer _____