eClassroom

Partial Fractions

Questions

Suitable for:

Pearson Edexcel International A-Level (iAL) — Pure Mathematics 4

Question 1

Express

$$\frac{5x - 11}{(x + 1)(x - 3)}$$

in partial fractions.

(3 marks)

Total for question = 3 marks

Question 2

Express

$$\frac{7x-1}{x^2-1}$$

in partial fractions.

(4 marks)

Total for question = 4 marks

Question 3

Express

$$\frac{4x^2 - 3x - 4}{x(x+2)(x-1)}$$

in partial fractions.

(5 marks)

Total for question = 5 marks

Question 4

Express

$$\frac{9x^2 - 12x - 3}{(x-2)(x+1)(2x-1)}$$

in partial fractions.

(5 marks)

Total for question = 5 marks

Question 5

Express

$$\frac{5x^2 + 3}{(x + 1)(x - 1)^2}$$

in partial fractions.

(5 marks)

Total for question = 5 marks

Question 6

Express

$$\frac{2x^2 + 12x + 12}{x(x+2)^2}$$

in partial fractions.

(5 marks)

Total for question = 5 marks

Question 7

Express

$$\frac{3x^2 + 4x - 10}{(x + 2)(x - 1)}$$

in the form

$$A + \frac{B}{x + 2} + \frac{C}{x - 1}$$

where A, B and C are constants to be found.

(5 marks)

Total for question = 5 marks

Question 8

Express

$$\frac{2x^3 + 3x^2 - 2x + 6}{(x-1)(x+2)}$$

in the form

$$Ax + B + \frac{C}{x-1} + \frac{D}{x+2}$$

where A, B, C and D are constants to be found.

(6 marks)

Total for question = 6 marks