Lesson 5

Partial Fractions : Pure Year 2

5.1 Past Paper Partial Fractions

Question 1

C4 examination question from June 2005, Q3 (a)

Express in partial fractions;

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

[3 marks]

Question 2

C4 examination question from June 2006, Q2 (a)

$$f(x) = \frac{3x - 1}{(1 - 2x)^2} \qquad |x| < \frac{1}{2}$$

Given that, for $x \neq \frac{1}{2}$

$$\frac{3x - 1}{(1 - 2x)^2} = \frac{A}{(1 - 2x)} + \frac{B}{(1 - 2x)^2}$$

where A and B are constants, find the values of A and B

[3 marks]

Question 3

C4 examination question from June 2010, Q5 (a)

$$\frac{2x^2 + 5x - 10}{(x - 1)(x + 2)} = A + \frac{B}{x - 1} + \frac{C}{x + 2}$$

Find the values of the constants A, B and C

[4 marks]

Question 4

C4 examination question from January 2013, Q3

Express in partial fractions;

$$\frac{9x^2 + 20x - 10}{(x + 2)(3x - 1)}$$

[4 marks]

Question 5

C4 examination question from June 2008, Q7 (a)

Express in partial fractions;

$$\frac{2}{(4 - y^2)}$$

[3 marks]