

7 (a) Express $\frac{4x + 3}{(x - 1)^2}$ in the form $\frac{A}{x - 1} + \frac{B}{(x - 1)^2}$

[3 marks]

7 (b) Show that

$$\int_3^4 \frac{4x + 3}{(x - 1)^2} dx = p + \ln q$$

where p and q are rational numbers.

[5 marks]