

Y	Q	Partial fractions	
2024	2	(a) Find partial fractions for $\frac{7-2x}{(2x-1)(x+1)}$	3
2022	2	Express the function $f(x) = \frac{2-3x-x^2}{(1+x)(1-x)^2}$ as a sum of partial fractions.	3
2018	2	(a) Find partial fractions for $\frac{13+6x+5x^2}{(1+x)(2-x)(3+x)}$ (b) Show that $\int_0^1 \frac{13+6x+5x^2}{(1+x)(2-x)(3+x)} dx = \ln \frac{a}{b}$ where a and b are positive integers.	4 3
2017	5	Express $\frac{3x^2+4x+17}{(x-3)(x^2+5)}$ as a sum of partial fractions.	4
2016	8	(a) Show that $\frac{3x^3+8x^2-11}{(x+1)(x+3)(x-2)}$ can be written as $3 + \frac{2x^2+15x+7}{x^3+2x^2-5x-6}$. (b) Hence express $\frac{3x^3+8x^2-11}{(x+1)(x+3)(x-2)}$ in partial fractions.	3 4