

Partial Fractions

Express the following in partial fractions:

1. $\frac{4x+9}{(x-2)(x-3)}$

2. $\frac{1}{x^3-9x}$

3. $\frac{8x-1}{(x-2)(x^2+1)}$

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

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

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

7. $\frac{x(x+3)}{x^2+x-12}$

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