

Partial fraction 2

1. Write $\frac{3-x}{(x^2+3)(x+3)}$ in partial fractions.
2. Partial fraction: $\frac{2R-4}{(R+1)(2R-1)(R-2)}$
3. Partial fraction: $\frac{x^3-x-5}{(x+2)(x^2+1)}$
4. Partial fraction: $\frac{1}{(x+1)^3(x+2)}$ and deduce $\frac{1}{(x+1)^n(x+2)}$
5. Evaluate $\sum_{n=1}^N \frac{2n^2+6n+6}{n(n+1)(n+2)(n+3)}$
6. Partial fraction: $\frac{x^3}{(x+1)(x^2-1)^3}$
7. Partial fraction: $\frac{1}{(x-1)^2(x+1)}$
8. Partial fraction: $\frac{(2s^3-s^2)}{(4s^2-4s+5)^2}$
9. Partial fraction: $\frac{x^2+1}{(x-1)^2(x+1)}$
10. Partial fraction: $\frac{1}{x(x^2+1)^2}$