

MTH 252Z Lab

Partial Fraction Decomposition

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Prompts

1. We use PFD to decompose our fraction, then we integrate things like $\frac{-2}{x+1}$ or $\frac{-2}{(x+1)^2}$. How do we integrate $\int \frac{-2}{x+1} dx$?
2. Evaluate $\int \frac{-2}{(x+1)^2} dx$.
3. Evaluate $\int \frac{x}{x^2+x-2} dx$.
4. Evaluate $\int \frac{5}{x^2+5x+6} dx$.
5. Evaluate $\int_0^1 \frac{2x-1}{x^2-2x-3} dx$.
6. Evaluate $\int \frac{1}{x(x-1)(x-2)(x-3)(x-4)} dx$.
7. Evaluate $\int \frac{x^2+x+1}{x^3-x} dx$.
8. Evaluate $\int \frac{12x+11}{6x^2+11x-10} dx$.