

Provide a clear and organized presentation. Evaluate the following integral:

$$\int \frac{x^7 - 23x^5 + 62x^4 - 82x^3 + 101x^2 - 68x + 10}{x^7 - 7x^6 + 19x^5 - 33x^4 + 50x^3 - 50x^2 + 32x - 24} dx$$