Assignment # 8.
Due March 17, 17:00

Problem 1. Write out the form of partial fraction decomposition. Do not determine the numerical value of constants.

$$\textbf{a.} \quad \frac{x^3 + 5x + 1}{x^4 + 4x^3 + 4x^2}, \qquad \textbf{b.} \quad \frac{1}{(x^2 - 2x + 1)^2(x^2 - x + 1)^3}.$$

Problem 2. Integrate

$$\textbf{a.} \quad \frac{2x^2 - x + 4}{x^3 + 4x}, \qquad \textbf{b.} \quad \frac{2x^4 + 2x^3 + 2x^2 + 2x + 1}{x^3 + x^2}.$$