Worksheet 10.2—Partial Fraction Decomposition
Show all work on a separate sheet of paper. No Calculator

Free Response & Short Answer

1. Evaluate \( \int \frac{dx}{2x^3 + x^2 - x} \)

2. Evaluate \( \int \frac{x^2 + 12x - 5}{(x+1)(x^2 - 6x - 7)} dx \)

3. Evaluate \( \int \frac{8x^2 - 3x - 4}{(4x-1)(x^2 + 1)} dx \)

4. Evaluate \( \int \frac{3x^3 - 5x^2 - 11x + 9}{x^2 - 2x - 3} dx \)

Long Division: 1st since deg num > deg denom

Heaviside Cover-Up Method (non-repeating linear factors)

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