

H.W. 6
Due Monday Feb. 23rd

Partial Fraction Decomposition

The following integrals can be computed using partial fraction decomposition.

(i)

$$\int \frac{x - 4}{x^3 + 3x^2 + 2x} dx$$

(ii)

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

(iii)

$$\int \frac{x^2 - 4}{(x - 1)(x^2 + 2)} dx$$

(iv)

$$\int \frac{x^2 + x + 2}{(x^2 + x + 1)(x^2 + 1)} dx$$

(v)

$$\int \frac{x^2 + 3x + 5}{(x + 1)^3} dx$$