

MATH 5B - INTEGRATION WORKSHEET

(1) $\int \sec^4 x \, dx$

(2) $\int \frac{dx}{x^2 + 4x - 5}$

(3) $\int \frac{dx}{2 + \sqrt{x}}$

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

(5) $\int_1^e x \ln x \, dx$

(6) $\int \sin^3 x \cos^{\frac{4}{3}} x \, dx$

(7) $\int x \sec x \tan x \, dx$

(8) $\int_{\sqrt{2}}^2 \frac{1}{x^2 \sqrt{x^2 - 1}} dx$

(9) $\int \frac{1 + e^x}{1 - e^x} dx$

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