Integration by Substitution: $\int \sin^2 x \cos x \, dx$, $\int \cos^3 x \, dx$, $\int \frac{1}{t \ln t} dt$,

$\int (x^2+1) x \, dx$, $\int 2x e^{x^2} dx$, $\int 3x^2 \sqrt{x^3+1} \, dx$, $\int \frac{2x}{x^2+1}$, $\int \frac{2-x}{\sqrt{2x^2-8x+1}}$

$\int \frac{e^{\frac{3}{x}}}{x^2} dx$, $\int (2x-1)^7 dx$, $\int \frac{1}{\sqrt{2x+1}} dx$, $\int \frac{8x}{e^{x^2}}$

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

$\int \frac{e^{2x}-1}{e^{2x}+1}$, $\int \tan x \sec^2 x \, dx$, $\int \frac{\sin x + \cos x}{\sin x - \cos x} dx$

$$\int u \, dv = \int [d(uv) - v \, du] = uv - \int v \, du$$

$$\int u(x) v'(x) \, dx = u(x) v(x) - \int v(x) u'(x) \, dx$$

$\int x e^x dx$, $\int \ln x \, dx$, $\int \frac{\ln(\ln x)}{x} dx$

$\int \frac{dt}{(t+A)(t+B)}$