

Substitution Problems

Integrate:

- $\int 3x\sqrt{(x^2 + 5)}dx$
- $\int 5x^2e^{x^3} dx$
- $\int 4x \cos(x^2 + 2)dx$
- $\int (x+1) \sin(x^2 + 2x + 3)dx$
- $\int \tan^2(x) \sec^2(x)dx$
- $\int \cot(x)dx$
- $\int \tan(x)dx$
- $\int \frac{(\ln x)^2}{x} dx$
- $\int \frac{1}{x \ln(x)} dx$
- $\int \sec(2x) \tan(2x)dx$
- $\int \sin^3(x) \cos(x)dx$
- $\int \frac{e^{\sqrt{t}}}{\sqrt{t}} dt$