

Random Integration Problems

$$\textcircled{1} \int \frac{x+2}{x^2+5x} dx$$

$$\textcircled{2} \int \sin^{10}(x) \cos^3(x) dx$$

$$\textcircled{3} \int x^6 \ln(x) dx$$

$$\textcircled{4} \int \frac{x^3}{x+1} dx$$

$$\textcircled{5} \int \frac{1}{\sqrt{x^2-4}} dx$$

$$\textcircled{6} \int \frac{dx}{x^3+x}$$

$$\textcircled{7} \int x \sec(x) \tan(x) dx$$

$$\textcircled{8} \int \frac{\sqrt{\tan^{-1}(x)}}{x^2+1} dx$$

$$\textcircled{9} \int \frac{dt}{\sin^2(t) + \cos(2t)}$$

$$\textcircled{10} \int \frac{x^2}{(4-x^2)^{3/2}} dx$$

$$\textcircled{11} \int \frac{dx}{1+e^x}$$

$$\textcircled{12} \int \frac{x^2+8x-3}{x^3+3x^2} dx$$