

Calculus 2: Harder IBP Quiz

(Q1.) $\int e^{\cos^{-1}x} dx$

(Q2.) $\int \tan^{-1}(\sqrt{x}) dx$

(Q3.) $\int \frac{\sin(\frac{1}{x})}{x^3} dx$

(Q4.) $\int \frac{x \sin^{-1}x}{\sqrt{1-x^2}} dx$

(Q5.) $\int \frac{\ln x}{(1+\ln x)^2} dx$

(Q6.) Given $\int \frac{e^x}{x} dx = \text{Ei}(x)$. Integrate $\int x e^x \ln x dx$

(Q7.) Given $\int \frac{\sin x}{x} dx = \text{Si}(x)$. Integrate $\int \frac{1}{(\sin^{-1}x)^2} dx$

(Q8.) Given $\int f(x) dx = F(x)$. Integrate $\int f^{-1}(x) dx$

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