

Family name:

Sr. #

Q1) Evaluate $\frac{d}{dx} \int_{\sin x}^{x^2} \tan^{-1}(t^2) dt$

Q2) Find $\int_{-1}^4 f(x) dx$, if $f(x) = \begin{cases} \sqrt{x} & , x \geq 0 \\ 3 & , x < 0 \end{cases}$

Q3) Find the general indefinite integral $\int (3^x + \frac{1}{1+x^2} + \frac{1}{x}) dx$