

TYPE-1	TYPE-2	TYPE-3
$\int \frac{1}{Trigno} dx$: $\int \frac{1}{a+b \cos x} dx$ Or $\int \frac{1}{a+b \sin x} dx$ Or $\int \frac{1}{a \cos x + b \sin x + c} dx$	$\int \frac{Trigno}{Trigno} dx$ $\int \frac{a \cos x + b \sin x}{c \cos x + d \sin x} dx$	$\int \frac{Trigno+k}{Trigno+l} dx$ $\int \frac{a \cos x + b \sin x + k}{c \cos x + d \sin x + e} dx$
Let $\tan\left(\frac{x}{2}\right) = t \Rightarrow dx = \frac{2dt}{1+t^2}$ $\sin x = \frac{2t}{1+t^2}, \quad \cos x = \frac{1-t^2}{1+t^2}$	$Nr = A(Dr)' + B(Dr)$	$Nr = A(Dr)' + B(Dr) + k$
$\int \frac{1}{x} dx = \log x + c$ $\int \frac{1}{x^2} dx = -\frac{1}{x} + c$ $\int \frac{1}{x^2+a^2} dx = \frac{1}{a} \tan^{-1}\left(\frac{x}{a}\right) + c$ $\int \frac{1}{x^2-a^2} dx = \frac{1}{2a} \log \left \frac{x-a}{x+a} \right + c$	$\int \frac{f'(x)}{f(x)} dx = \log f(x) + c,$ $\int 1 dx = x + c$	$\int \frac{f'(x)}{f(x)} dx = \log f(x) + c ,$ $\int 1 dx = x + c$
$\int \frac{1}{5+4 \cos x} dx$, $\int \frac{1}{4+5 \sin x} dx$ $\int \frac{1}{4 \cos x + 3 \sin x} dx$, $\int \frac{1}{1+\sin x + \cos x} dx$ $\int \frac{1}{3 \cos x + 4 \sin x + 6} dx$, $\int \frac{1}{\sin x + \sqrt{3} \cos x} dx$ $\int \frac{1}{5+4 \cos 2x} dx$, $\int \frac{1}{2-3 \cos 2x} dx$	$\int \frac{9 \cos x - \sin x}{4 \sin x + 5 \cos x} dx$ $\int \frac{2 \cos x + 3 \sin x}{4 \cos x + 5 \sin x} dx$	$\int \frac{2 \cos x + 3 \sin x + 4}{3 \sin x + 4 \cos x + 5} dx$ $\int \frac{\cos x + 3 \sin x + 7}{\cos x + \sin x + 1} dx$