TYPE-1	TYPE-2	TYPE-3	TYPE-4
$\int \frac{px+q}{ax^2+bx+c}dx \quad \left[\int \frac{L}{Q}dx\right]$	$\int \frac{px+q}{\sqrt{ax^2+bx+c}}dx \quad \left[\int \frac{L}{\sqrt{Q}}dx\right]$	$\int (px+q)\sqrt{ax^2+bx+c}\,dx \quad \left[\int L\sqrt{Q}dx\right]$	$\int \frac{1}{px+q\sqrt{ax^2+bx+c}}dx \quad \left[\int \frac{1}{L\sqrt{Q}}dx\right]$
Working rule $L = AQ' + B$	Working rule $L = AQ' + B$	Working rule $L = AQ' + B$	Working rule $L = \frac{1}{t}$
$\int \frac{f'(x)}{f(x)}dx = \log\lvert f(x)\rvert + c$	$\int \frac{f'(x)}{\sqrt{f(x)}}dx = 2\sqrt{f(x)} + c$	$\int f'(x)\sqrt{f(x)}\,dx = \frac{(f(x))^{\frac{3}{2}}}{\frac{3}{2}}c$	$l = \frac{1}{t}\Big/ \begin{cases} t = ? \\ x = ? \\ dx = ? \end{cases}$
$\int \frac{1}{x^2+a^2}dx = \frac{1}{a}\tan^{-1}\left(\frac{x}{a}\right)+c$	$\int \frac{1}{\sqrt{x^2+a^2}}dx = \sinh^{-1}\left(\frac{x}{a}\right)+c$ $\int \frac{1}{\sqrt{a^2-x^2}}dx = \sin^{-1}\left(\frac{x}{a}\right)+c$	$\int \sqrt{x^2+a^2}dx = \frac{x}{2}\sqrt{x^2+a^2} + \frac{a^2}{2}\sinh^{-1}\left(\frac{x}{a}\right) + c$ $\int \sqrt{a^2-x^2}dx = \frac{x}{2}\sqrt{a^2-x^2} + \frac{a^2}{2}\sin^{-1}\left(\frac{x}{a}\right) + c$	$\int \frac{1}{\sqrt{ax+b}}dx = (2)\frac{\sqrt{ax+b}}{a} + c$
$\int \frac{x+1}{x^2+3x+12}dx \quad \left[\int \frac{L}{Q}dx\right]$	$\int \frac{2x+5}{\sqrt{x^2-2x+10}}dx \quad \left[\int \frac{L}{\sqrt{Q}}dx\right]$ $\int \frac{x+1}{\sqrt{x^2-x+1}}dx$ $\int \frac{\sqrt{5-x}}{\sqrt{x-2}}dx$	$\int (6x+5)\sqrt{6-2x^2+x}\,dx \quad \left[\int L\sqrt{Q}dx\right]$ $\int (3x-2)\sqrt{2x^2-x+1}\,dx$ $\int x\sqrt{1+x-x^2}\,dx$	$\int \frac{1}{(1+x)\sqrt{3+2x-x^2}}dx \quad \left[\int \frac{1}{L\sqrt{Q}}dx\right]$ $\int \frac{1}{(1-x)\sqrt{3-2x-x^2}}dx$ $\int \frac{1}{(x+1)\sqrt{2x^2+3x+1}}dx$