Integrals Containing Cos Function

$\int \cos ax\,dx = \frac{1}{a}\sin ax + c$
$\int \cos^3 ax\,dx = \frac{1}{a}\sin ax - \frac{1}{3a}\sin^3 ax + c$
$\int \cos^3 ax\,dx = \frac{1}{a}\sin ax - \frac{1}{3a}\sin^3 ax + c$
$\int \cos^4 ax\,dx = \frac{3}{8}x + \frac{1}{4a}\sin 2ax + \frac{1}{32a}sin4ax + c$
$\int \cos^n ax\,dx = \frac{(\cos^{(n-1)} ax \sin ax)}{na} + \frac{(n-1)}{n}\int \cos^{(n-2)} ax\,dx$
$\int x\cos ax\,dx = \frac{(\cos ax)}{a^2} + \frac{(x\sin ax)}{a} + c$
$\int x^2\cos ax\,dx = \frac{2x}{a^2}\cos ax + [\frac{x^2}{a} - \frac{2}{a^3}]\sin ax + c$
$\int x^3\cos ax\,dx = [\frac{3x^2}{a^2} - \frac{6}{a^4}]\cos ax + [\frac{x^3}{a} - \frac{6x}{a^3}]\sin ax + c$
$\int x\,6\,n\cos ax\,dx = \frac{(x^n \sin ax)}{a} - \frac{n}{a}\int x^{(n-1)}\sin ax\,dx$
$\int \frac{cosax}{x}dx = \ln(ax) - \frac{(ax)^2}{2.2!} + \frac{(ax)^4}{2.2!} - \frac{(ax)^6}{6.6!} + ... + c$
$\int \frac{(\cos ax)}{x^2}dx = \frac{-(\cos ax)}{x} - a\int \frac{(sinax)}{x}dx$
$\int \frac{(\cos ax)}{x^n}dx = \frac{-(\cos ax)}{[(n-1)x^{(n-1)}]} - \frac{a}{(n-1)}\int \frac{(sinax)}{x^{(n-1)}}dx\ ,\ for: n \neq 1$
$\int \frac{dx}{(cosax)} = \frac{1}{a}\ln[\tan(\frac{ax}{2} + \frac{\pi}{4})] + c$
$\int \frac{dx}{(\cos^2 ax)} = \frac{1}{a}\tan ax + c$
$\int \frac{dx}{(\cos^{3ax})} = \frac{(\sin ax)}{(2a\cos^{2ax})} + \frac{1}{2a}\ln[\tan(\frac{\pi}{4} + \frac{ax}{2})] + c$
$\int \frac{dx}{\cos^n} ax = \frac{1}{(a(n-1))} * (\frac{(sinax)}{(\cos^{(n-1)} ax)}) + \frac{(n-2)}{(n-1)}\int \frac{dx}{(\cos^{(n-2)} ax)}\ for: n > 1$
$\int \frac{xdx}{(cosax)} = \frac{1}{a^2} * [\frac{(ax)^2}{2} + \frac{(ax)^4}{4.2!} + 5\frac{(ax)^6}{6.4!} + 61\frac{(ax)^8}{8.6!} + 1385\frac{(ax)^{10}}{10.8!} + ...] + c$
$\int \frac{xdx}{(\cos^2 ax)} = \frac{x}{a}\tan ax + \frac{1}{a^2}\ln\cos ax + c$
$\int \frac{dx}{(1+\cos ax)} = \frac{1}{a}\tan(\frac{ax}{2}) + c$
$\int \frac{dx}{(1-cosax)} = \frac{-1}{a}\cot(\frac{ax}{2}) + c$
$\int \frac{xdx}{(1+cosax)} = \frac{x}{a}\tan(\frac{ax}{2}) + \frac{2}{a^2}\ln(\cos\frac{ax}{2}) + c$