Przydatne wzory

$$(\cos\alpha + j\sin\alpha)^n = \cos n\alpha + j\sin n\alpha$$
$$\cos(\alpha\pm\beta) = \cos\alpha\cos\beta \mp \sin\alpha\sin\beta$$
$$\sin(\alpha\pm\beta) = \sin\alpha\cos\beta \pm \cos\alpha\sin\beta$$
$$\cos\alpha\cdot\cos\beta = \frac{1}{2}(\cos(\alpha+\beta)+\cos(\alpha-\beta))$$
$$\sin\alpha\cdot\sin\beta = \frac{1}{2}(\cos(\alpha-\beta)-\cos(\alpha+\beta))$$
$$\sin\alpha\cdot\cos\beta = \frac{1}{2}(\sin(\alpha+\beta)+\sin(\alpha-\beta))$$

$$(x^a)' = a\cdot x^{a-1}$$
$$(a^x)' = \ln a\cdot a^x$$
$$(\log_a x)' = \frac{1}{\ln a\cdot x}$$
$$(\sin x)' = \cos x$$
$$(\cos x)' = -\sin x$$
$$(\operatorname{tg} x)' = \frac{1}{\cos^2 x} = \operatorname{tg}^2 x + 1$$
$$(\operatorname{ctg} x)' = -\frac{1}{\sin^2 x} = -\operatorname{ctg}^2 x - 1$$
$$(\arcsin x)' = \frac{1}{\sqrt{1-x^2}} = -(\arccos x)'$$
$$(\text{arc tg } x)' = \frac{1}{x^2+1} = -(\text{arc ctg } x)'$$
$$(f\cdot g)' = f'\cdot g + f\cdot g'$$
$$\left(\frac{f}{g}\right)' = \frac{f'\cdot g - f\cdot g'}{g^2}$$
$$(f(g(x)))' = f'(g(x))\cdot g'(x)$$
$$\int x^a\,dx = \begin{cases} \frac{x^{a+1}}{a+1} + C, & \text{gdy } a \neq -1 \\ \ln|x| + C, & \text{gdy } a = -1 \end{cases}$$
$$\int f(g(x))\cdot g'(x)dx = \int f(u)\,du,\ \text{gdzie } u = g(x)$$
$$\int f(x)g'(x)\,dx = f(x)g(x) - \int f'(x)g(x)\,dx$$