Trigonometriska formler

$$\sin 2x = 2\sin x\cos x$$

$$\cos 2x = \cos^2 x - \sin^2 x$$

$$= 1 - 2\sin^2 x = 2\cos^2 x - 1$$

$$\sin(x \pm y) = \sin x\cos y \pm \cos x\sin y$$

$$\cos(x \pm y) = \cos x\cos y \mp \sin x\sin y$$

$$\sin^2 \tfrac{1}{2}x = \tfrac{1}{2}(1 - \cos x)$$

$$\cos^2 \tfrac{1}{2}x = \tfrac{1}{2}(1 + \cos x)$$

$$\sin x\sin y = \tfrac{1}{2}(\cos(x-y) - \cos(x+y))$$

$$\sin x\cos y = \tfrac{1}{2}(\sin(x+y) + \sin(x-y))$$

$$\cos x\cos y = \tfrac{1}{2}(\cos(x+y) + \cos(x-y))$$

Maclaurinutvecklingar

$$e^x = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \cdots + \frac{x^n}{n!} + O(x^{n+1})$$

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \cdots + (-1)^{n-1}\,\frac{x^{2n-1}}{(2n-1)!} + O(x^{2n+1})$$

$$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \cdots + (-1)^n\,\frac{x^{2n}}{(2n)!} + O(x^{2n+2})$$

$$\ln(1+x) = x - \frac{x^2}{2} + \frac{x^3}{3} - \frac{x^4}{4} + \cdots + (-1)^{n-1}\,\frac{x^n}{n} + O(x^{n+1})$$

$$\arctan x = x - \frac{x^3}{3} + \frac{x^5}{5} - \cdots + (-1)^{n-1}\,\frac{x^{2n-1}}{2n-1} + O(x^{2n+1})$$

$$(1+x)^\alpha = 1 + \frac{\alpha}{1!}\,x + \frac{\alpha(\alpha-1)}{2!}\,x^2 + \frac{\alpha(\alpha-1)(\alpha-2)}{3!}\,x^3 + \cdots + \binom{\alpha}{n}x^n + O(x^{n+1})$$