Développements limités

```
> taylor(sin(x),x,0,10);
```

$$x-\frac{x^3}{6}+\frac{x^5}{120}-\frac{x^7}{5040}+\frac{x^9}{362880}+\cdots$$

```
> taylor(sin(x+%pi/3),x,0,4);
```

$$\frac{\sqrt{3}}{2}+\frac{x}{2}-\frac{\sqrt{3}\,x^2}{4}-\frac{x^3}{12}+\frac{\sqrt{3}\,x^4}{48}+\cdots$$

```
> taylor(tan(x+PI/4),x,0,2);
```

$$\tan\left(\frac{\pi}{4}\right)+\left(\tan^2\left(\frac{\pi}{4}\right)+1\right)x+\left(\tan^3\left(\frac{\pi}{4}\right)+\tan\left(\frac{\pi}{4}\right)\right)x^2+\cdots$$

```
> taylor(sin(a*x)-sin(b*x),x,0,3);
```

$$(a-b)\,x-\frac{\left(a^3-b^3\right)x^3}{6}+\cdots$$

```
> taylor(log(1+x+sqrt(1+x)),x,0,6);
```

$$\ln 2 + \frac{3x}{4} - \frac{11x^2}{32} + \frac{7x^3}{32} - \frac{163x^4}{1024} + \frac{319x^5}{2560} - \frac{1255x^6}{12288} + \cdots$$

```
> assume(x>0);
```

$$[x > 0]$$

```
> taylor(atan(x),x,inf,6);
```

$$\frac{\pi}{2} - \frac{1}{x} + \frac{1}{3x^3} - \frac{1}{5x^5} + \cdots$$

```
> taylor(1/(1-cos(x)),x,0,8);
```

$$\frac{2}{x^2} + \frac{1}{6} + \frac{x^2}{120} + \frac{x^4}{3024} + \frac{x^6}{86400} + \frac{x^8}{2661120} + \cdots$$

```
> taylor(sin(tan(x))-tan(sin(x)),x,0,10);
```

$$-\frac{x^7}{30} - \frac{29x^9}{756} + \cdots$$