# Simple example

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## 1 Hello

This is a simple example using the HAT$_E$X library and some math stuff.

$$4^{\left(2^3\right)^2} - 10000 \cdot 10000 \cdot (10000 \cdot 10000) \cdot (10000 \cdot 10000 \cdot 10000)$$

is 3402823669109384634633740607431768211456.
For $x = 19$ and $\tau = 2 \cdot \pi$,

$$2 + 7 \cdot (6 - \tau) - e^{5 - \sqrt{x^2 + \frac{4}{\pi}}}$$

is approximately $1.7702 \cdot 10^{-2}$.

$$\arcsin\left(\sin\left(\arccos\left(\cos\left(\arctan\left(\tan 0\right)\right)\right)\right)\right)$$

is 0,

$$\operatorname{arcsinh}\left(\sinh\left(\operatorname{arccosh}\left(\frac{\cosh\left(\operatorname{arctanh}(\tanh 0)\right)}{2}\right)\right)\right)$$

**is not.**(Test passed.)