

1 Inline-Berechnungen

Einfache Rechnung: $3 \times 3 = 9$

(L^AT_EX-Code: $\$3 \times 3 = \text{sage}\{3*3\}\$$)

2 Sage-Blöcke

Funktionsdefinition:

$$f(x) = \exp(x) * \sin(2*x)$$

2.1 Latex-Code:

```
\begin{sageblock}
  f(x) = exp(x) * sin(2*x)
\end{sageblock}
```

2.2 2. Ableitung von f

$$\frac{d^2}{dx^2} e^x \sin(2x) = -3 e^x \sin(2x) + 4 e^x \cos(2x).$$

2.3 Latex-Code:

```
\[
  \frac{\mathrm{d}^2}{\mathrm{d}x^2} \text{sage}\{f(x)\} =
  \text{sage}\{\text{diff}(f, x, 2)(x)\}.
\]
```

3 Sage-Blöcke ohne Anzeige

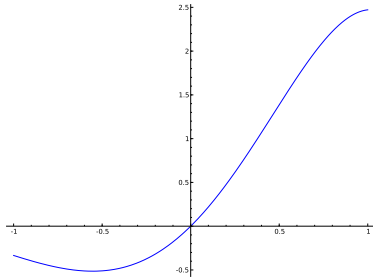
```
\begin{sagesilent}
f2(x) = 2*x
\end{sagesilent}
```

$$2 * 7 = 14$$

3.1 Latex-Code:

```
\[ 2 * 7 = \text{sage}\{f2(7)\} \]
```

4 Plot von f from -1 to 1



4.1 Latex-Code:

```
\sageplot[width=5cm]{plot(f, -1, 1)}
```