

## Equations in L<sup>A</sup>T<sub>E</sub>X

### Equation 1

$$\begin{aligned}x &= \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \\&= \frac{-2 \pm \sqrt{2^2 - 4 * (1) * (-8)}}{2 * 1} \\&= \frac{-2 \pm \sqrt{4 + 32}}{2}\end{aligned}$$

### Equation 2

$$\begin{aligned}\varphi_{\sigma}^{\lambda} A_t &= \sum_{\pi \in C_t} sgn(\pi) \varphi_{\sigma}^{\lambda} \varphi_{\pi}^{\lambda} \\&= \sum_{\tau \in C_{\sigma t}} sgn(\sigma^{-1} \tau \sigma) \varphi_{\sigma}^{\lambda} \varphi_{\sigma^{-1} \tau \sigma}^{\lambda} \\&= A_{\sigma t} \varphi_{\sigma}^{\lambda}\end{aligned}$$