

## Equations in LaTeX

### Equation 1

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

### Equation 2

$$\begin{aligned}\varphi_\sigma^\lambda a_t + \sum_{\pi \in c_t} \operatorname{sgn}(\pi) \varphi_\pi^\lambda \\&= \sum_{\tau \in c_{\sigma t}} \operatorname{sgn}(\sigma^{-1} \tau \sigma) \varphi_\sigma^\lambda \varphi_{\sigma^{-1} \tau \sigma}^\lambda \\&= a_{\sigma t} \varphi_\sigma^\lambda\end{aligned}$$