

7. Develop a LaTeX script to create a document that consists of the following two mathematical equations.

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

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

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\documentclass{article}
\begin{document}
  \begin{center}
    \Large{\textbf{Equations in LaTeX}}
  \end{center}

  \section*{Equation 1}
  \[
    x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}
  \]

  \[
    = \frac{-2 \pm \sqrt{2^2 - 4(1)(-8)}}{2 \cdot 1}
  \]

  \[
    = \frac{-2 \pm \sqrt{4 + 32}}{2}
  \]

  \section*{Equation 2}
  \[
    \varphi^{\lambda}_{\sigma} A_t = \sum_{\pi \in C_t} \text{sgn}(\pi) \varphi^{\lambda}_{\sigma} \varphi^{\lambda}_{\pi}
  \]

  \[
    = \sum_{\tau \in C_{\sigma t}} \text{sgn}(\sigma^{-1} \tau \sigma) \varphi^{\lambda}_{\sigma} \varphi^{\lambda}_{\sigma^{-1} \tau \sigma}
  \]

  \[
    = A_{\sigma t} \varphi^{\lambda}_{\sigma}
  \]
\end{document}
```