```
K : \Gamma \Downarrow \neg rght(b) ::
                                                                                                                                                          \mathcal{K}: \Gamma \Downarrow \neg rght(a) ::
                                                                \mathcal{K}:\Gamma \uparrow
                                                                                                                                                                        \mathcal{K}:\Gamma \uparrow
                                                  \mathcal{K}:\Gamma \uparrow \neg rght(b)::
                                                                                                                                                          \mathcal{K}: \Gamma \uparrow \neg rght(a) ::
\overline{\mathcal{K}:\Gamma \Downarrow \neg lft(b) ::} \quad \overline{\mathcal{K}:\Gamma \Downarrow !^r \neg rght(b) ::}
                                                                                                       \mathcal{K}: \Gamma \Downarrow \neg lft(a) :: \overline{\mathcal{K}: \Gamma \Downarrow !^r \neg rght(a) ::}
             \mathcal{K}:\Gamma\uparrow
                                                                \mathcal{K}:\Gamma \uparrow
                                                                                                                    \mathcal{K}:\Gamma\uparrow
                                                                                                                                                                        \mathcal{K}:\Gamma\uparrow
\mathcal{K}: \Gamma \uparrow \uparrow^{2} lft(b) :: \qquad \overline{\mathcal{K}: \Gamma \uparrow^{2} rght(b) ::}
                                                                                                       \mathcal{K}: \Gamma \uparrow ?^{l} lft(a) :: \qquad \overline{\mathcal{K}: \Gamma \uparrow ?^{r} rght(a) ::}
\mathcal{K}:\Gamma \Downarrow ?^{l}lft(b) :: \quad \mathcal{K}:\Gamma \Downarrow !^{l}?^{r}rght(b) :: \quad \mathcal{K}:\Gamma \Downarrow ?^{l}lft(a) :: \quad \mathcal{K}:\Gamma \Downarrow !^{l}?^{r}rght(a) ::
             \mathcal{K}: \Gamma \Downarrow !^l?^r rght(b) \otimes ?^l lft(b) ::
                                                                                                                   \mathcal{K}: \Gamma \Downarrow !^l?^r rght(a) \otimes ?^l lft(a) ::
                                          \mathcal{K}:\Gamma \uparrow
                                                                                                                                                \mathcal{K}:\Gamma\uparrow
                           \mathcal{K}:\Gamma \uparrow \neg lft(b)::
                                                                                                                                    \overline{\mathcal{K}:\Gamma \Uparrow \neg lft(a)::}
                           K : \Gamma \uparrow !^l \neg lft(b) ::
                                                                                                                                   \mathcal{K} : \Gamma \Downarrow !^l \neg lft(a) ::
              \mathcal{K}: \Gamma \Downarrow !^l \neg lft(a) \oplus !^l \neg lft(b) ::
                                                                                                                     \mathcal{K}: \Gamma \Downarrow !^l \neg lft(a) \oplus !^l \neg lft(b) ::
                                         \mathcal{K}:\Gamma\uparrow
                                                                                                                                                \mathcal{K}:\Gamma \uparrow
                       K : \Gamma \uparrow ?^l !^r \neg rght(b) ::
                                                                                                                             K: \Gamma \uparrow ?^l!^r \neg rght(a) ::
                                                        \mathcal{K}: \Gamma \uparrow \uparrow^{l}!^{r} \neg rght(a) \& \uparrow^{l}!^{r} \neg rght(b) ::
                              \overline{\mathcal{K}:\Gamma \Uparrow !^l \neg lft(a) \oplus !^l \neg lft(b) :::?^l !^r \neg rght(a) \& ?^l !^r \neg rght(b) ::}
                              \mathcal{K}:\Gamma \uparrow\!\!\!\uparrow!^l\neg lft(a) \oplus !^l\neg lft(b) \otimes ?^l!^r\neg rght(a) \otimes ?^l!^r\neg rght(b) ::
                              \overline{\mathcal{K}:\Gamma \Uparrow !^l \lnot lft(a) \oplus !^l \lnot lft(b) \otimes ?^l !^r \lnot rght(a) \otimes ?^l !^r \lnot rght(b) ::}
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