left option

right option

$$ {}^{s:t}\overleftarrow{\varphi \boxtimes \psi} := {}^{s}\varphi \; {}^{t^{-}s}\psi $$

$$ {}^{s:t}\overrightarrow{\varphi \boxtimes \psi} \; = {}^{s}\varphi \; {}^{st^{-}}\psi $$

$$ \begin{cases} {}^{s:t}_{\rightharpoonup}\daleth = {}^{st^{-}}\daleth \\ {}^{s:t}_{\leftharpoondown}\daleth = {}^{t^{-}s}\daleth \end{cases} $$

$$ {}^{\rceil}_{\rightharpoonup}\daleth \; = 1\boxtimes\daleth $$

$$ {}^{\lceil}_{\leftharpoondown}\daleth \; = 1\boxtimes\daleth $$

$$ {}^{s:t}\overleftarrow{{}_{\rightharpoonup}\daleth\,\underbrace{\varphi\boxtimes\psi}} \; = {}^{s:t^{-}s}_{\rightharpoonup}\daleth \; {}^{s:t}\overleftarrow{\varphi\boxtimes\psi} \; = {}^{s:t^{-}s}_{\rightharpoonup}\daleth \; {}^{s}\varphi \; {}^{t^{-}s}\psi \; = {}^{s\overparen{\overline{t^{-}s}}}\daleth \; {}^{s}\varphi \; {}^{t^{-}s}\psi \; = {}^{t}\daleth \; {}^{s}\varphi \; {}^{t^{-}s}\psi \; = {}^{t}\daleth \; {}^{s:t}\overleftarrow{\varphi\boxtimes\psi} \; = {}^{s:t}\overparen{1\boxtimes\daleth\,\overleftarrow{\varphi\boxtimes\psi}} $$

$$ {}^{s:t}\overrightarrow{{}_{\leftharpoondown}\daleth\,\underbrace{\varphi\boxtimes\psi}} \; = {}^{s:st^{-}}_{\leftharpoondown}\daleth \; {}^{s:t}\overrightarrow{\varphi\boxtimes\psi} \; = {}^{s:st^{-}}_{\leftharpoondown}\daleth \; {}^{s}\varphi \; {}^{st^{-}}\psi \; = {}^{\overparen{\overline{st^{-}}}s}\daleth \; {}^{s}\varphi \; {}^{st^{-}}\psi \; = {}^{t}\daleth \; {}^{s}\varphi \; {}^{st^{-}}\psi \; = {}^{t}\daleth \; {}^{s:t}\overrightarrow{\varphi\boxtimes\psi} \; = {}^{s:t}\overparen{\imath\boxtimes\daleth\,\overrightarrow{\varphi\boxtimes\psi}} $$

$$ \overparen{\overleftarrow{g}\boxtimes 1}^{\rceil} \; = \overleftarrow{g}\boxtimes\overleftarrow{g} \;\Longrightarrow\; \overparen{\overleftarrow{u}\boxtimes 1}^{\rceil} \; = \overleftarrow{u}^{\urcorner} $$

$$ \overparen{\overrightarrow{g}\boxtimes 1}^{\lceil} \; = \overrightarrow{g}\boxtimes\overrightarrow{g} \;\Longrightarrow\; \overparen{\overrightarrow{u}\boxtimes 1}^{\lceil} \; = \overrightarrow{u}^{\ulcorner} $$

$$ {}^{s:t}\overleftarrow{\underbrace{\overleftarrow{g}\boxtimes 1}\,\underbrace{\varphi\boxtimes\psi}} \; = {}^{s:t}\overleftarrow{\underbrace{\overleftarrow{g}\varphi}\boxtimes\psi} \; = {}^{s}\overparen{\overleftarrow{g}\varphi} \; {}^{t^{-}s}\psi \; = {}^{g^{-}s}\varphi \; {}^{t^{-}s}\psi \; = {}^{g^{-}s}\varphi \; {}^{(g^{-}t)^{-}g^{-}s}\psi \; = {}^{g^{-}s:g^{-}t}\overleftarrow{\varphi\boxtimes\psi} \; = {}^{s:t}\overparen{\underbrace{\overleftarrow{g}\boxtimes\overleftarrow{g}}\;\overleftarrow{\varphi\boxtimes\psi}} $$

$$ {}^{s:t}\overrightarrow{\underbrace{\overrightarrow{g}\boxtimes 1}\,\underbrace{\varphi\boxtimes\psi}} \; = {}^{s:t}\overrightarrow{\underbrace{\overrightarrow{g}\varphi}\boxtimes\psi} \; = {}^{s}\overparen{\overrightarrow{g}\varphi} \; {}^{st^{-}}\psi \; = {}^{sg}\varphi \; {}^{st^{-}}\psi \; = {}^{sg}\varphi \; {}^{sg(tg)^{-}}\psi \; = {}^{sg:tg}\overrightarrow{\varphi\boxtimes\psi} \; = {}^{s:t}\overparen{\underbrace{\overrightarrow{g}\boxtimes\overrightarrow{g}}\;\overrightarrow{\varphi\boxtimes\psi}} $$

$$\overbrace{\mathbb{L}^{\urcorner}\mathbb{X}1}^{\imath\mathbb{X}\rceil} = \overbrace{\mathbb{L}^{\urcorner}}^{\urcorner\,\mathbb{X}1}$$

$$\overbrace{\mathbb{L}^{\ulcorner}\mathbb{X}1}^{\imath\mathbb{X}\lceil} = \overbrace{\mathbb{L}^{\ulcorner}}^{\ulcorner\,\mathbb{X}1}$$

$$\overbrace{b\mathbb{X}\overleftarrow{u}\mathbb{X}1}^{\imath\mathbb{X}\rceil} = b\mathbb{X}\,\overleftarrow{u}^{\urcorner} = \overbrace{b\mathbb{X}\overleftarrow{u}}^{\imath\mathbb{X}\urcorner}$$

$$\mathbb{T}\mathbb{X}\mathbb{C}\underset{\ell}{\not\nabla}\mathbb{H} \ni \mathbb{L}^{\urcorner} = b_i\,\mathbb{X}\,\overleftarrow{u}^i \Longrightarrow \text{LHS} = \overbrace{\mathbb{L}^{\urcorner}}^{\imath\mathbb{X}\urcorner} = \text{RHS}$$

$$\overbrace{b\mathbb{X}\overrightarrow{u}\mathbb{X}1}^{\imath\mathbb{X}\lceil} = b\mathbb{X}\,\overrightarrow{u}^{\ulcorner} = \overbrace{b\mathbb{X}\overrightarrow{u}}^{\imath\mathbb{X}\ulcorner}$$

$$\mathbb{T}\mathbb{X}\mathbb{C}\underset{r}{\not\nabla}\mathbb{H} \ni \mathbb{L}^{\ulcorner} = b_i\,\mathbb{X}\,\overrightarrow{u}^i \Longrightarrow \text{LHS} = \overbrace{\mathbb{L}^{\ulcorner}}^{\imath\mathbb{X}\ulcorner} = \text{RHS}$$

$$\overbrace{1\mathbb{X}\overleftarrow{g}}^{\urcorner} = 1\mathbb{X}\,\overrightarrow{g} \Longrightarrow \overbrace{1\mathbb{X}\overleftarrow{u}}^{\urcorner} = 1\mathbb{X}\,\overrightarrow{u}$$

$$\overbrace{1\mathbb{X}\overrightarrow{g}}^{\ulcorner} = 1\mathbb{X}\,\overleftarrow{g} \Longrightarrow \overbrace{1\mathbb{X}\overrightarrow{u}}^{\ulcorner} = 1\mathbb{X}\,\overleftarrow{u}$$

$$\overbrace{\underbrace{1\mathbb{X}\overleftarrow{g}}\,\underbrace{\varphi\mathbb{X}\psi}}^{s:t} = \overbrace{\varphi\mathbb{X}\underbrace{\overleftarrow{g}\psi}}^{s:t} = {}^{s}\varphi^{t^{-}s\overbrace{\overleftarrow{g}\psi}} = {}^{s}\varphi^{g-t^{-}s}\psi = {}^{s}\varphi^{\overline{tg}s}\psi = \overbrace{\varphi\mathbb{X}\psi}^{s:tg} = \overbrace{\underbrace{1\mathbb{X}\overrightarrow{g}}\,\overbrace{\varphi\mathbb{X}\psi}}^{s:t}$$

$$\overbrace{\underbrace{1\mathbb{X}\overrightarrow{g}}\,\underbrace{\varphi\mathbb{X}\psi}}^{s:t} = \overbrace{\varphi\mathbb{X}\underbrace{\overrightarrow{g}\psi}}^{s:t} = {}^{s}\varphi^{st^{-}\overbrace{\overrightarrow{g}\psi}} = {}^{s}\varphi^{st^{-}g}\psi = {}^{s}\varphi^{s\overline{g-t}}\psi = \overbrace{\varphi\mathbb{X}\psi}^{s:g-t} = \overbrace{\underbrace{1\mathbb{X}\overleftarrow{g}}\,\overbrace{\varphi\mathbb{X}\psi}}^{s:t}$$

$$\begin{cases} \underbrace{\mathbb{T}\,\mathbb{X}\,\overset{\mathbb{H}}{\underset{0}{\not\nabla}}\overset{\omega}{\mathbb{C}}}\,\mathbb{X}\mathbb{C}\underset{\ell}{\not\nabla}\mathbb{H} \\ \underbrace{\mathbb{T}\,\mathbb{X}\,\overset{\mathbb{H}}{\underset{0}{\not\nabla}}\overset{\omega}{\mathbb{C}}}\,\mathbb{X}\mathbb{C}\underset{r}{\not\nabla}\mathbb{H} \end{cases} \quad \ni \quad \begin{cases} \nearrow\ \underbrace{\mathbb{L}^{\urcorner}\overbrace{\imath\mathbb{X}\urcorner}}\,\underbrace{\imath\mathbb{X}1\mathbb{X}\overleftarrow{u}} \\ \nwarrow\ \underbrace{\mathbb{L}^{\ulcorner}\overbrace{\imath\mathbb{X}\urcorner}}\,\underbrace{\imath\mathbb{X}1\mathbb{X}\overrightarrow{u}} \end{cases}$$

$$\asymp \begin{cases} \imath\mathbb{X}\rceil \\ \imath\mathbb{X}\lceil \end{cases}$$

$$\mathbb{T}\mathbb{X}\overset{\omega}{\mathbb{C}}\Big|\overset{\mathbb{H}}{\underset{m}{\not\nabla}}\overset{2}{\mathbb{C}} \quad \ni \quad \begin{cases} \mathbb{L}^{\urcorner}\overbrace{\imath\mathbb{X}\urcorner\overrightarrow{u}} \\ \mathbb{L}^{\ulcorner}\overbrace{\imath\mathbb{X}\urcorner\overleftarrow{u}} \end{cases}$$

$$\overbrace{\underbrace{\mathbb{L}^{\urcorner}\overbrace{\imath\mathbb{X}\urcorner}}_{\nearrow}\underbrace{\imath\mathbb{X}1\mathbb{X}\overleftarrow{u}}}^{\imath\mathbb{X}\rceil} = \overbrace{\mathbb{L}^{\urcorner}\underbrace{\imath\mathbb{X}\overbrace{\urcorner\vec{u}}}}^{\urcorner\,\mathbb{X}1}$$

$$\overbrace{\underbrace{\mathbb{L}^{\ulcorner}\overbrace{\imath\mathbb{X}\urcorner}}_{\nwarrow}\underbrace{\imath\mathbb{X}1\mathbb{X}\vec{u}}}^{\imath\mathbb{X}\lceil} = \overbrace{\mathbb{L}^{\ulcorner}\underbrace{\imath\mathbb{X}\overbrace{\urcorner\overleftarrow{u}}}}^{\ulcorner\,\mathbb{X}1}$$

$$\text{LHS} = \overbrace{\underbrace{\mathbb{L}^{\urcorner}\mathbb{X}1}\underbrace{\imath\mathbb{X}\bar{\urcorner}}\underbrace{\imath\mathbb{X}1\mathbb{X}\overleftarrow{u}}}^{\imath\mathbb{X}\rceil} = \overbrace{\mathbb{L}^{\urcorner}\mathbb{X}1}^{\imath\mathbb{X}\rceil}\overbrace{\imath\mathbb{X}\bar{\urcorner}}^{\imath\mathbb{X}\rceil}\overbrace{\imath\mathbb{X}1\mathbb{X}\overleftarrow{u}}^{\imath\mathbb{X}\rceil} = \overbrace{\mathbb{L}^{\urcorner}}^{\urcorner\,\mathbb{X}1}\underbrace{\imath\mathbb{X}1\mathbb{X}\urcorner}\underbrace{\imath\mathbb{X}1\mathbb{X}\vec{u}}$$

$$= \overbrace{\mathbb{L}^{\urcorner}}^{\urcorner\,\mathbb{X}1}\overbrace{\imath\mathbb{X}1\mathbb{X}\urcorner\vec{u}} = \overbrace{\mathbb{L}^{\urcorner}}^{\urcorner\,\mathbb{X}1}\underbrace{\imath^{\urcorner}\mathbb{X}\overbrace{\urcorner\vec{u}}} = \overbrace{\mathbb{L}^{\urcorner}}^{\urcorner\,\mathbb{X}1}\overbrace{\imath\mathbb{X}\urcorner\vec{u}}^{\urcorner\,\mathbb{X}1} = \text{RHS}$$

$$\text{LHS} = \overbrace{\underbrace{\mathbb{L}^{\ulcorner}\mathbb{X}1}\underbrace{\imath\mathbb{X}_{\llcorner}\urcorner}\underbrace{\imath\mathbb{X}1\mathbb{X}\vec{u}}}^{\imath\mathbb{X}\lceil} = \overbrace{\mathbb{L}^{\ulcorner}\mathbb{X}1}^{\imath\mathbb{X}\lceil}\overbrace{\imath\mathbb{X}_{\llcorner}\urcorner}^{\imath\mathbb{X}\lceil}\overbrace{\imath\mathbb{X}1\mathbb{X}\vec{u}}^{\imath\mathbb{X}\lceil} = \overbrace{\mathbb{L}^{\ulcorner}}^{\ulcorner\,\mathbb{X}1}\underbrace{\imath\mathbb{X}1\mathbb{X}\urcorner}\underbrace{\imath\mathbb{X}1\mathbb{X}\overleftarrow{u}}$$

$$= \overbrace{\mathbb{L}^{\ulcorner}}^{\ulcorner\,\mathbb{X}1}\overbrace{\imath\mathbb{X}1\mathbb{X}\urcorner\overleftarrow{u}} = \overbrace{\mathbb{L}^{\ulcorner}}^{\ulcorner\,\mathbb{X}1}\underbrace{\imath^{\ulcorner}\mathbb{X}\overbrace{\urcorner\overleftarrow{u}}} = \overbrace{\mathbb{L}^{\ulcorner}}^{\ulcorner\,\mathbb{X}1}\overbrace{\imath\mathbb{X}\urcorner\overleftarrow{u}}^{\ulcorner\,\mathbb{X}1} = \text{RHS}$$