$$ {}_{u_\ell}\underset{\varpi}{\in} \,|\, {}_{\epsilon}\mathbb{L} = \underset{\varpi}{\in}^{O}_{1} \,|\, {}_{\epsilon}\mathbb{L} \times {}_{u_\ell}\underset{\varpi}{\in}^{O}_{-} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{\ell < i < j \leqslant r} \underset{\varpi}{\in}^{1}_{j-i} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{i < j > \ell} \underset{\varpi}{\in}^{-}_{j-i} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{0 \leqslant i \leqslant j > \ell} \underset{\varpi}{\in}^{-}_{j+i} \,|\, {}_{\epsilon}\mathbb{L} $$

$$ {}^{u_\ell}\underset{\varpi}{\in} \,|\, {}_{\epsilon}\mathbb{L} = {}_{u_\ell}\underset{\varpi}{\in} \,|\, {}_{\epsilon}\mathbb{L} \times {}^{u_\ell}\underset{\varpi}{\in}^{O}_{-} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{1 \leqslant i < j \leqslant \ell} \underset{\varpi}{\in}^{\varkappa}_{j-i} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{0 \leqslant i \leqslant j \leqslant \ell} \underset{\varpi}{\in}^{\varkappa}_{j+i} \,|\, {}_{\epsilon}\mathbb{L} $$

$$ {}_{u_\ell}\underset{\varpi}{\in}^{O}_{-} \,|\, {}_{\epsilon}\mathbb{L} = \mathbb{K}\frac{2\overset{*}{e}_k e_k}{k > \ell} $$

$$ {}^{u_\ell}\underset{\varpi}{\in}^{O}_{-} \,|\, {}_{\epsilon}\mathbb{L} = \mathbb{K}\frac{2\overset{*}{e}_k e_k}{k \leqslant \ell} $$

$$ u_\ell \delta = \sum_{k \leqslant \ell} e_k \delta = 0 $$

$$ u_\ell 2 \overset{*}{e}_k e_k = 2 u_\ell \overset{*}{e}_k e_k = \begin{cases} 2e_k & k \leqslant \ell \\ 0 & k > \ell \end{cases} $$

$$ u_\ell \overset{*}{a} e_j = \begin{cases} a/2 & i \leqslant \ell \\ 0 & i > \ell \end{cases} $$

$$ u_\ell \overset{*}{e}_j a = \begin{cases} a/2 & j \leqslant \ell \\ 0 & j > \ell \end{cases} $$

$$ \underbrace{a\frac{\partial}{\partial z}}_{u_\ell} = a $$

$$ \underbrace{z\overset{*}{a}z\frac{\partial}{\partial z}}_{u_\ell} = u_\ell \overset{*}{a} u_\ell = \begin{cases} -a/2 & i < j \leqslant \ell \\ -a & i = j \leqslant \ell \\ 0 & i \leqslant j > \ell \end{cases} $$

$$ \underbrace{b + 2z\overset{*}{b}e}_{u_\ell} = b + 2 u_\ell \overset{*}{b} e = b $$

$$ \underbrace{z\overset{*}{b}z + 2z\overset{*}{e}b}_{u_\ell} = u_\ell \overset{*}{b} u_\ell + 2 u_\ell \overset{*}{e} b = \begin{cases} b & j \leqslant \ell \\ 0 & j > \ell \end{cases} $$

$$ {}_{u_\ell:\infty}\underset{\varpi}{\in} \,|\, {}_{\epsilon}\mathbb{L} = \underset{\varpi}{\in}^{\bullet}_{1} \,|\, {}_{\epsilon}\mathbb{L} \times {}_{u_\ell}\underset{\varpi}{\in}^{\bullet}_{-} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{\ell < i < j \leqslant r} \underset{\varpi}{\in}^{1}_{j-i} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{i < j > \ell} \underset{\varpi}{\in}^{-}_{j-i} \,|\, {}_{\epsilon}\mathbb{L} $$

$$ {}^{u_\ell}_{\infty}\underset{\varpi}{\in} \,|\, {}_{\epsilon}\mathbb{L} = {}_{u_\ell:\infty}\underset{\varpi}{\in} \,|\, {}_{\epsilon}\mathbb{L} \times {}^{u_\ell}\underset{\varpi}{\in}^{\bullet}_{-} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{1 \leqslant i < j \leqslant \ell} \underset{\varpi}{\in}^{\varkappa}_{j-i} \,|\, {}_{\epsilon}\mathbb{L} \times \sum_{0 \leqslant i \leqslant j \leqslant \ell} \underset{\varpi}{\in}^{1}_{j+i} \,|\, {}_{\epsilon}\mathbb{L} $$

$$ {}_{u_\ell}\overset{\bullet}{\underset{\omega}{\Theta}}\_ \mid {}_{\epsilon}\mathbb{L} = \mathbb{K}\frac{2\overset{*}{e}_k e_k}{k > \ell} $$

$$ {}^{u_\ell}\overset{\bullet}{\underset{\omega}{\Theta}}\_ \mid {}_{\epsilon}\mathbb{L} = \mathbb{K}\frac{2\overset{*}{e}_k e_k}{k \leqslant \ell} $$

$$ u_\ell \delta = \sum_{k \leqslant \ell} e_k \delta = 0 $$

$$ u_\ell 2\,\overset{*}{e}_k\, e_k = 2\, u_\ell\, \overset{*}{e}_k\, e_k = \begin{cases} 2e_k & k \leqslant \ell \\ 0 & k > \ell \end{cases} $$

$$ u_\ell\, \overset{*}{a}\, e_j = \begin{cases} a/2 & i \leqslant \ell \\ 0 & i > \ell \end{cases} $$

$$ u_\ell\, \overset{*}{e}_j\, a = \begin{cases} a/2 & j \leqslant \ell \\ 0 & j > \ell \end{cases} $$

$$ \underbrace{a\frac{\partial}{\partial z}}_{u_\ell} = a $$

$$ \underbrace{z\overset{*}{a}z\frac{\partial}{\partial z}}_{u_\ell} = u_\ell\, \overset{*}{a}\, u_\ell = \begin{cases} -a/2 & i < j \leqslant \ell \\ -a & i = j \leqslant \ell \\ 0 & i \leqslant j > \ell \end{cases} $$

$$ \underbrace{b + 2z\overset{*}{b}e}_{u_\ell} = b + 2\, u_\ell\, \overset{*}{b} e = b $$

$$ \underbrace{z\overset{*}{b}z + 2z\overset{*}{e}b}_{u_\ell} = u_\ell\, \overset{*}{b}\, u_\ell + 2\, u_\ell\, \overset{*}{e}\, b = \begin{cases} b & j \leqslant \ell \\ 0 & j > \ell \end{cases} = b $$

$$ \underbrace{z\overset{*}{b}z + 2z\overset{*}{e}b}_{u_\ell} = u_\ell\, \overset{*}{b}\, u_\ell + 2\, u_\ell\, \overset{*}{e}\, b = \begin{cases} b & j \leqslant \ell \\ 0 & j > \ell \end{cases} $$