$$\tilde{\mathfrak{h}}_{\infty}\, \bar{\mathfrak{h}}\, \mathbb{K}^{\mathbb{N}} \xleftarrow[\llcorner']{\qquad\qquad} {}_{2^n}\underbrace{\tilde{\mathfrak{h}}_{\infty}\,\mathbb{K}}$$

$$\tilde{\mathfrak{h}}_{\infty}\, \bar{\mathfrak{h}}\, \mathbb{K}^{\mathbb{N}} \ni \llcorner^{J} = \bigwedge_{j \in J} \llcorner^{j} \quad \text{dual standard basis}$$

$$\overset{*}{\llcorner}{}^{I}\, \llcorner^{J} = \det\, \overset{*}{\llcorner}{}^{i}\, \llcorner^{j} = \det\, {}_{i}\delta^{j} = {}_{I}\delta^{J} = {}_{I}\llcorner\, \llcorner^{J}$$

$$\overset{*}{\llcorner}{}^{I} = {}_{I}\llcorner$$

$$\llcorner^{I} \wedge \llcorner^{J} = \overset{*}{\llcorner}{}^{I}\; \mathring{\eta}\; \llcorner^{J} = \det\, \llcorner^{i} \wedge \llcorner^{j} = \det\, {}_{i}\eta^{j} = {}_{I}\eta^{J} = {}_{I}\mathring{\eta}^{J}$$

$$\times\; {}_{I}\llcorner = \llcorner^{I}\; {}_{I}\eta^{I}$$

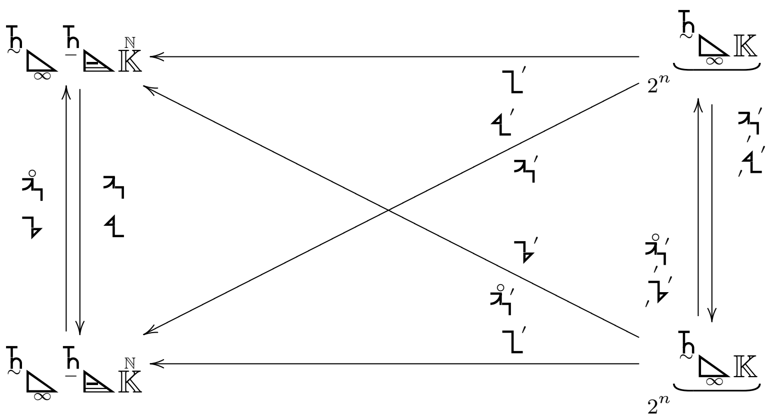
$$\llcorner^{I} = (\times\, {}_{I}\llcorner)\; {}_{I}\eta^{I}$$

$$\ast\, \llcorner^{I} = \llcorner^{N \llcorner I}\; \overline{I > \overset{\circ}{N} \llcorner I}\; {}_{I}\eta^{I}$$

$$,\!\blacktriangleleft = ,\llcorner\; \underbrace{\llcorner', \blacktriangleleft}: \qquad {}_{M}\llcorner\, \llcorner^{N} = \det\left({}_{\mu}\llcorner\llcorner^{\nu}\right) = \det\, {}_{\mu}\delta^{\nu} = {}_{M}\delta^{N}$$

$$,\!\blacktriangleright = ,\llcorner\; \underbrace{\llcorner', \blacktriangleright}: \qquad \overset{*}{\llcorner}{}^{I}\, \llcorner^{J} = \det\, \overset{*}{\llcorner}{}^{i}\, \llcorner^{j} = \det\, {}_{i}\delta^{j} = {}_{I}\delta^{J} = {}_{I}\llcorner\, \llcorner^{J}$$

$$\overset{*}{\llcorner}{}^{I} = {}_{I}\llcorner$$



$$\overset{*}{\llcorner}{}^{I} \underset{\mathfrak{h}}{\wedge} \llcorner^{J} = \begin{cases} \overset{*}{\llcorner}{}^{I}\, \mathfrak{h}\, \llcorner^{J} & = \mathfrak{h}^{IJ} \\ \overset{*}{\llcorner}{}^{I}\, \flat\, \llcorner^{J} & = {}_{I}\llcorner\, \flat\, \llcorner^{J} = \det\, \llcorner^{i} \underset{\mathfrak{h}}{\wedge} \llcorner^{j} = \det\, {}_{I}\flat^{J} = {}_{I}\flat^{J} \end{cases}$$

$$\overset{z}{\times}\; {}_{J}\llcorner = \sum_{|I| = |J|} \llcorner^{I}\; {}_{I}^{z}\blacktriangleleft^{J}$$

$$\daleth^{J} = \sum_{|I|=|J|} \left(\overset{z}{\nabla}{}_{I}\daleth \right) {}_{I}\beth^{J}_{z}$$

$${}_{M}\daleth \sum_{I} \daleth^{I} \; {}_{I}\overset{\tilde{z}}{\gimel}{}^{J} = \sum_{I} {}_{M}\delta^{I} \; {}_{I}\overset{\tilde{z}}{\gimel}{}^{J} = {}_{M}\overset{\tilde{z}}{\gimel}{}^{J} = {}_{M}\daleth \; \overset{\tilde{z}}{\nabla} \; {}_{J}\daleth$$

$${}_{M}\daleth \; \daleth^{J} = {}_{M}\delta^{J} = \det{}_{M} \left(\beth_{z} {}^{z}\gimel \right)^{J} = \sum_{|I|=|J|} {}_{M}\beth^{I}_{z} \; {}^{z}_{I}\gimel^{J} = \sum_{I} \left({}_{M}\daleth \nabla {}_{I}\daleth \right) {}^{z}_{I}\gimel^{J}$$

$$\overset{z}{\nabla} {}_{I}\beth = \gimel^{I} \; {}_{I}\eta^{I}$$

$$\nabla \gimel^{I} = \left({}_{I}\beth \right) \; {}_{I}\eta^{I}$$

$$\bar{\hbar} \, \overset{-}{\Delta} \overset{\mathbb{N}}{\mathbb{K}} \ni \begin{cases} \aleph^{J} & = \aleph_{9}\daleth \\ \gimel^{J} & = \underset{j \in J}{\nabla} \gimel^{j} = \gimel \daleth^{J} \end{cases} \quad \text{dual ONBasis}$$

$$\begin{cases} \aleph & = \aleph^{I} {}_{I}\daleth \\ \gimel & = \gimel^{I} {}_{I}\daleth \end{cases}$$

$$\begin{cases} \aleph^{I} \underset{\hbar}{\nabla} \aleph^{J} = \overset{*}{\aleph}{}^{I} \gimel \aleph^{J} = \overset{*}{\aleph}{}^{I} \underbrace{\bar{\overset{*}{\aleph}} \mathring{\eta} \mathring{\aleph}}\aleph^{J} = \underbrace{\aleph^{\overset{*}{I}} \mathring{\aleph}} \mathring{\eta} \underbrace{\aleph^{J} \mathring{\aleph}} & = \underbrace{\aleph \overset{*}{\daleth}{}^{I}} \underbrace{\bar{\overset{*}{\aleph}} \mathring{\eta} \cdots} \\ \gimel^{I} \underset{\hbar}{\nabla} \gimel^{J} = \det \overset{*}{\gimel}{}^{i} \left(\overset{*}{\beth} \eta \beth \right) \gimel^{j} = \det \left(\beth \overset{*}{\gimel}{}^{i} \right) \eta \left(\beth \gimel^{j} \right) = \det {}_{i}\overset{*}{\daleth} \eta \daleth^{j} = \overset{*}{\gimel}{}^{I} \beth \gimel^{J} = \overset{*}{\gimel}{}^{I} \underbrace{\overset{*}{\beth} \mathring{\eta} \beth} \gimel^{J} = \underbrace{\beth \overset{*}{\gimel}{}^{I}} \mathring{\eta} \underbrace{\beth \gimel^{J}} & = \underbrace{\gimel \overset{*}{\daleth}{}^{I}} \underbrace{\overset{*}{\beth} \mathring{\eta} \cdots} \end{cases}$$

$$\underset{z}{\ast} \, \gimel^{I} = \gimel^{N \llcorner I} \; \overline{I > \underset{\circ}{N} \llcorner I} \; {}_{I}\eta^{I}$$

$$\underset{z}{\ast} \, \daleth^{J} = \sum_{|I|=|J|} \daleth^{N \llcorner I} \; \overline{I > \underset{\circ}{N} \llcorner I} \; {}_{I}\beth^{J}_{z} \left({}_{N}\eta^{N} / {}_{N}\beth^{N}_{z} \right)^{1/2}$$

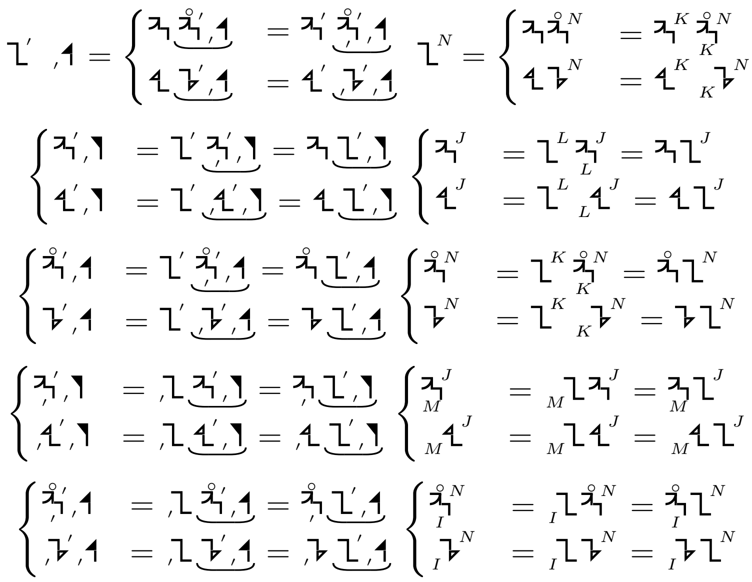
$$\gimel^{N} = c \; \daleth^{N}$$

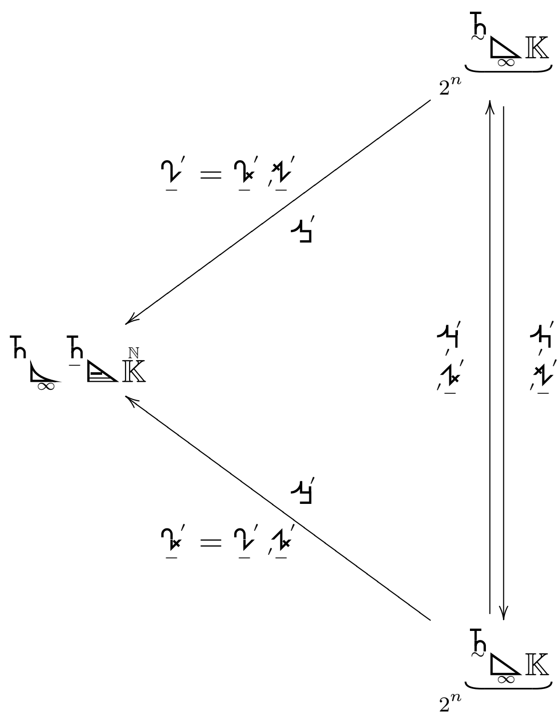
$${}_{N}\eta^{N} = \gimel^{N} \underset{z}{\nabla} \gimel^{N} = c^{2} \; \daleth^{N} \underset{z}{\nabla} \daleth^{N} = c^{2} \; {}_{N}\beth^{N}_{z} \implies \text{LHS} = \sum_{I} \underbrace{{}_{I}\daleth \vDash \gimel^{N}} \; {}_{I}\beth^{J}_{z} = \sum_{I} {}_{I}\daleth \vDash \daleth^{N} \left({}_{N}\eta^{N} / {}_{N}\beth^{N}_{z} \right)^{1/2} {}_{I}\beth^{J}_{z} = \text{RH}\cdots$$

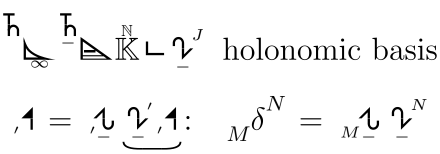
$${}_{,}\daleth = \begin{cases} \mathring{\aleph}_{,} \underbrace{\aleph'_{,}\daleth} \\ {}_{,}\beth \underbrace{\gimel'_{,}\daleth} \end{cases} \quad : \quad {}_{I}\delta^{J} = \begin{cases} \mathring{\aleph}_{I} \aleph^{J} \\ {}_{I}\beth \gimel^{J} \end{cases}$$

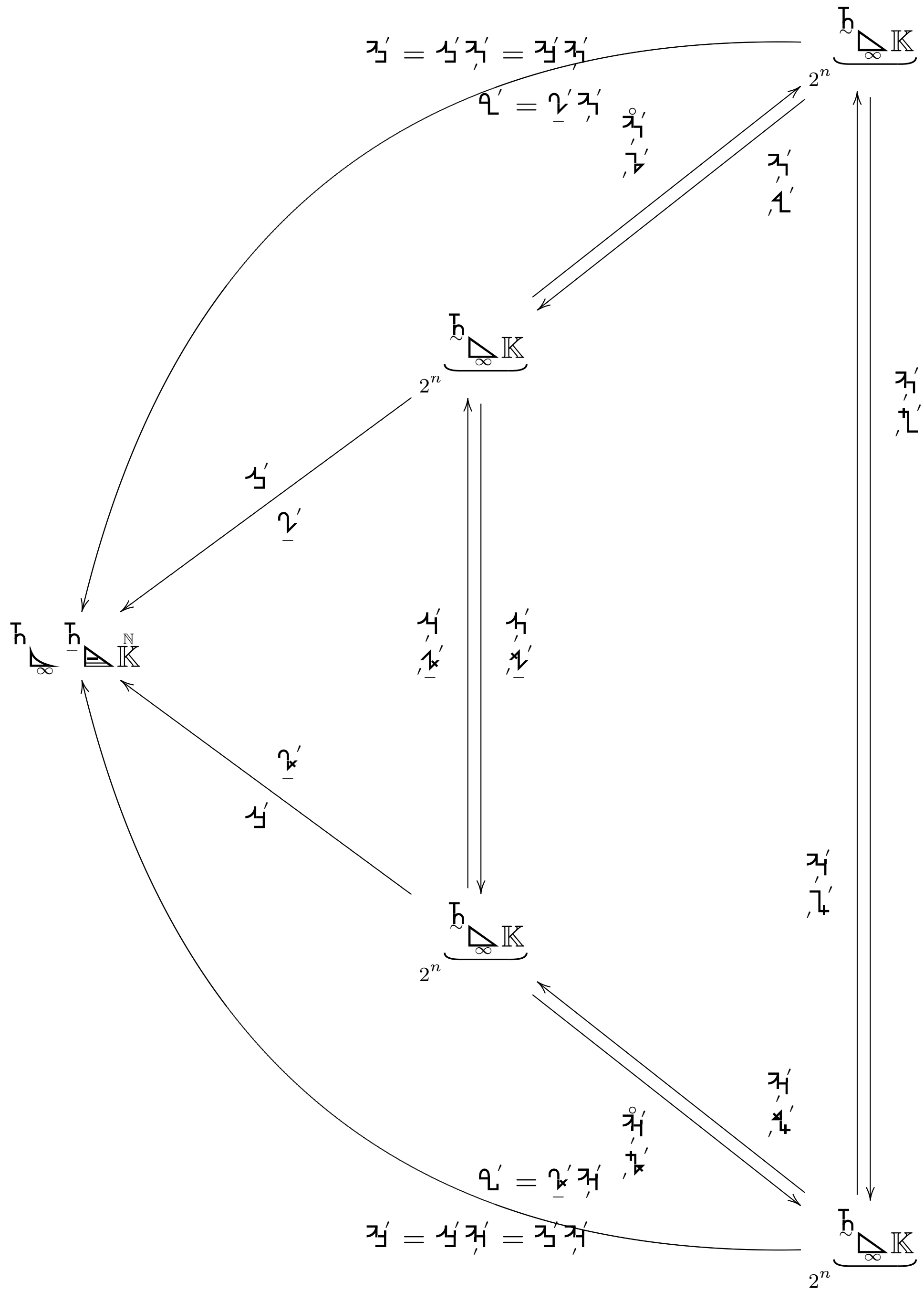
$${}_{,}\gimel = \begin{cases} \aleph_{,} \underbrace{\mathring{\aleph}'_{,}\gimel} \\ {}_{,}\gimel \underbrace{\beth'_{,}\gimel} \end{cases} \quad : \quad {}_{M}\delta^{N} = \begin{cases} \aleph_{M} \mathring{\aleph}^{N} \\ {}_{M}\gimel \beth^{N} \end{cases}$$

$$\daleth' \; {}_{,}\daleth = \begin{cases} \mathring{\aleph} \underbrace{\aleph'_{,}\daleth} & = \mathring{\aleph}' \underbrace{\aleph_{,}'\daleth} \\ \beth \underbrace{\gimel'_{,}\daleth} & = \beth' \underbrace{\gimel'_{,}\daleth} \end{cases} \; \daleth^{J} = \begin{cases} \mathring{\aleph} \aleph^{J} & = \mathring{\aleph}^{L} {}_{L}\aleph^{J} \\ \beth \gimel^{J} & = \beth^{L} {}_{L}\gimel^{J} \end{cases}$$



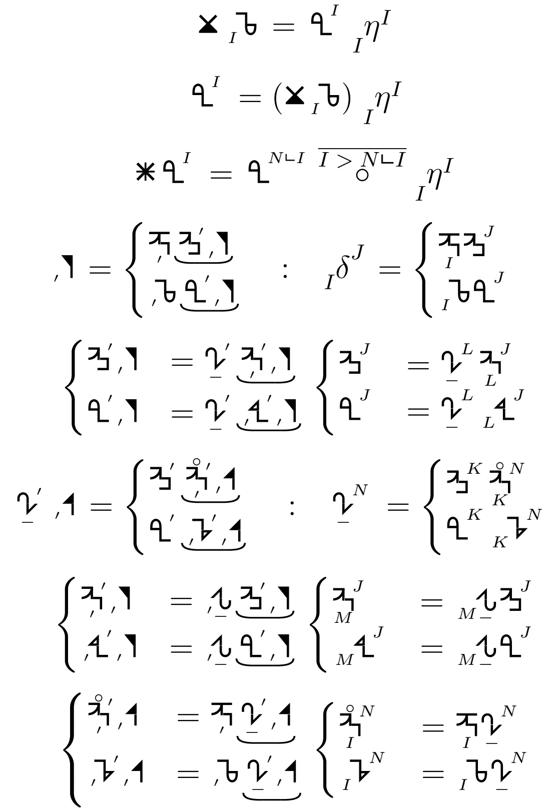

2^n
2^n

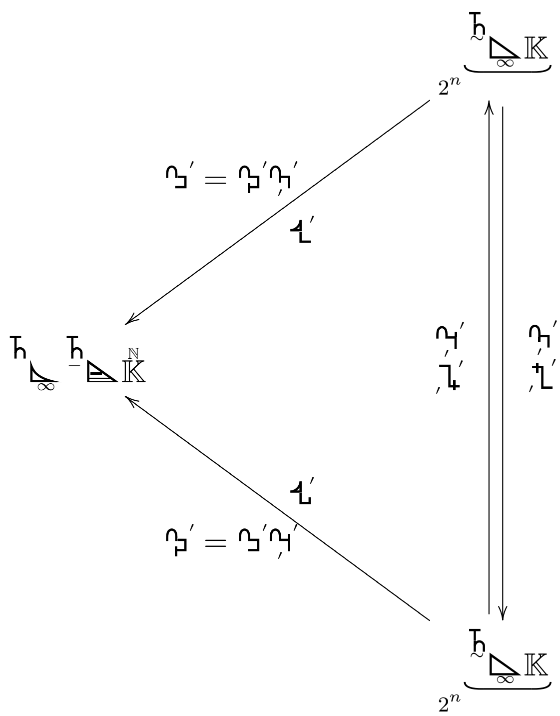

holonomic basis



$= {}_{j \in J}$ dual ONbasis

$= {}_{I}\eta^{J}$





2^n
2^n