$$R = \bar{\bar{a}}\, \underline{\underline{\eta}}^{0} + \bar{a}\, \underline{\eta}^{0} + a\, \eta^{0}$$

$$\mathbb{1}^{0}\, \underline{\mathbb{1}}^{1} - \mathbb{1}^{1}\, \underline{\mathbb{1}}^{0} \neq 0$$

$${}^{x}\eta = -{}^{x}\mathbb{1}^{0} \int_{dt}^{x} \frac{{}^{t}\mathbb{1}^{1}}{{}^{t}W}\frac{{}^{t}R}{{}^{t}a} + {}^{x}\mathbb{1}^{1} \int_{dt}^{x} \frac{{}^{t}\mathbb{1}^{0}}{{}^{t}W}\frac{{}^{t}R}{{}^{t}a} = -{}^{x}\mathbb{1}^{0} \int^{x} \frac{\mathbb{1}^{1}}{W}\frac{R}{a} + {}^{x}\mathbb{1}^{1} \int^{x} \frac{\mathbb{1}^{0}}{W}\frac{R}{a}$$

$$\text{Ansatz } {}^{x}\eta = {}^{x}u_0\, {}^{x}\mathbb{1}^{0} + {}^{x}u_1\, {}^{x}\mathbb{1}^{1}$$

$$\underline{u}_0\, \mathbb{1}^{0} + \underline{u}_1\, \mathbb{1}^{1} = 0$$

$$\eta^{0} = u_0\, \mathbb{1}^{0} + u_1\, \mathbb{1}^{1}$$

$$\Longrightarrow \underline{\eta}^{0} = \underline{u}_0\, \mathbb{1}^{0} + u_0\, \underline{\mathbb{1}}^{0} + \underline{u}_1\, \mathbb{1}^{1} + u_1\, \underline{\mathbb{1}}^{1} = u_0\, \underline{\mathbb{1}}^{0} + \underbrace{\underline{u}_0 \mathbb{1}^{0} + \underline{u}_1 \mathbb{1}^{1}}_{=0} + u_1\, \underline{\mathbb{1}}^{1} = u_0\, \underline{\mathbb{1}}^{0} + u_1\, \underline{\mathbb{1}}^{1}$$

$$\Longrightarrow \underline{\underline{\eta}}^{0} = \underline{u}_0\, \underline{\mathbb{1}}^{0} + u_0\, \underline{\underline{\mathbb{1}}}^{0} + \underline{u}_1\, \underline{\mathbb{1}}^{1} + u_1\, \underline{\underline{\mathbb{1}}}^{1}$$

$$\Longrightarrow R = \bar{\bar{a}}\, \underline{\underline{\eta}}^{0} + \bar{a}\, \underline{\eta}^{0} + a\, \eta^{0} = \bar{\bar{a}} \left(\underline{u}_0 \underline{\mathbb{1}}^{0} + u_0 \underline{\underline{\mathbb{1}}}^{0} + \underline{u}_1 \underline{\mathbb{1}}^{1} + u_1 \underline{\underline{\mathbb{1}}}^{1}\right) + \bar{a} \left(u_0 \underline{\mathbb{1}}^{0} + u_1 \underline{\mathbb{1}}^{1}\right) + a \left(u_0 \mathbb{1}^{0} + u_1 \mathbb{1}^{1}\right)$$

$$= u_0 \underbrace{\bar{\bar{a}} \underline{\underline{\mathbb{1}}}^{0} + \bar{a} \underline{\mathbb{1}}^{0} + a \mathbb{1}^{0}}_{=0} + u_1 \underbrace{\bar{\bar{a}} \underline{\underline{\mathbb{1}}}^{1} + \bar{a} \underline{\mathbb{1}}^{1} + a \mathbb{1}^{1}}_{=0} + a \left(\underline{u}_0 \underline{\mathbb{1}}^{0} + \underline{u}_1 \underline{\mathbb{1}}^{1}\right)$$

$$\Longrightarrow \underline{u}_0\, \underline{\mathbb{1}}^{0} + \underline{u}_1\, \underline{\mathbb{1}}^{1} = R/a \Longrightarrow \frac{\mathbb{1}^{0} \;\big|\; \mathbb{1}^{1}}{\underline{\mathbb{1}}^{0} \;\big|\; \underline{\mathbb{1}}^{1}} \frac{\underline{u}_0}{\underline{u}_1} = \frac{0}{R/a}$$

$$\Longrightarrow \frac{\underline{u}_0}{\underline{u}_1} = \frac{\mathbb{1}^{0} \;\big|\; \mathbb{1}^{1}}{\underline{\mathbb{1}}^{0} \;\big|\; \underline{\mathbb{1}}^{1}}^{-1} \frac{0}{R/a} = \frac{1}{\mathbb{1}^{0} \underline{\mathbb{1}}^{1} - \mathbb{1}^{0} \underline{\mathbb{1}}^{0}} \frac{\underline{\mathbb{1}}^{1} \;\big|\; -\mathbb{1}^{1}}{-\underline{\mathbb{1}}^{0} \;\big|\; \mathbb{1}^{0}} \frac{0}{R/a}$$

$$\Longrightarrow \begin{cases} \underline{u}_0 = -\dfrac{\mathbb{1}^{1} R}{a\left(\mathbb{1}^{0} \underline{\mathbb{1}}^{1} - \mathbb{1}^{1} \underline{\mathbb{1}}^{0}\right)} \\ \underline{u}_1 = \dfrac{\mathbb{1}^{0} R}{a\left(\mathbb{1}^{0} \underline{\mathbb{1}}^{1} - \mathbb{1}^{0} \underline{\mathbb{1}}^{0}\right)} \end{cases} \Longrightarrow \begin{cases} u_0 = -\int_{dx} \dfrac{\mathbb{1}^{1} R}{a\left(\mathbb{1}^{0} \underline{\mathbb{1}}^{1} - \mathbb{1}^{0} \underline{\mathbb{1}}^{0}\right)} \\ u_1 = \int_{dx} \dfrac{\mathbb{1}^{0} R}{a\left(\mathbb{1}^{0} \underline{\mathbb{1}}^{1} - \mathbb{1}^{0} \underline{\mathbb{1}}^{0}\right)} \end{cases}$$

$${}^{x}\eta = -{}^{x}\mathbb{1}^{0} \left(c_0 + \int_{dt} \frac{{}^{t}\mathbb{1}^{1}}{{}^{t}W}\frac{{}^{t}R}{{}^{t}a}\right) + {}^{x}\mathbb{1}^{1} \left(c_1 + \int_{dt} \frac{{}^{t}\mathbb{1}^{0}}{{}^{t}W}\frac{{}^{t}R}{{}^{t}a}\right) = -{}^{x}\mathbb{1}^{0} \left(c_0 + \int \frac{\mathbb{1}^{1}}{W}\frac{R}{a}\right) + {}^{x}\mathbb{1}^{1} \left(c_1 + \int \frac{\mathbb{1}^{0}}{W}\frac{R}{a}\right)$$

$$\underline{\underline{y}} + y = \sec x \Longrightarrow \begin{cases} {}^x\mathbb{1}^0 & = {}^x\mathfrak{c} \\ {}^x\mathbb{1}^1 & = {}^x\mathfrak{s} \end{cases} \Longrightarrow {}^xW = 1$$

$$\Longrightarrow {}^x\P = -{}^x\mathfrak{c} \int_{dx} \frac{{}^x\mathfrak{s}\sec x}{1} + {}^x\mathfrak{s} \int_{dx} \frac{{}^x\mathfrak{c}\sec x}{1} = -{}^x\mathfrak{c} \int_{dx} {}^x\mathfrak{t} + {}^x\mathfrak{s} \int_{dx} 1 = -{}^x\mathfrak{c}\, \ln\left({}^x\mathfrak{c}\right) + x\, {}^x\mathfrak{s}$$

$$\underline{\underline{y}} - 2\underline{y} + y = \frac{e^x}{x^2+1} \Longrightarrow \begin{cases} {}^x\mathbb{1}^0 & = e^x \\ {}^x\mathbb{1}^1 & = xe^x \end{cases} \Longrightarrow {}^xW = e^{2x}$$

$$\Longrightarrow {}^x\P = -e^x \int_{dx} \frac{xe^x}{e^{2x}} \frac{e^x}{x^2+1} + x\,e^x \int_{dx} \frac{e^x}{e^{2x}} \frac{e^x}{x^2+1} = -e^x \int_{dx} \frac{x}{x^2+1} + x\,e^x \int_{dx} \frac{1}{x^2+1} = -e^x \frac{\ln\left(x^2+1\right)}{2} + x\,e^x \overset{-1}{\tan} x$$

$$\underline{\underline{y}} + 2\underline{y} + y = e^{-x}\, {}^x\mathfrak{c} \Longrightarrow \begin{cases} {}^x\mathbb{1}^0 & = e^{-x} \\ {}^x\mathbb{1}^1 & = xe^{-x} \end{cases} \Longrightarrow {}^xW = e^{-2x}$$

$$\Longrightarrow {}^x\P = -e^{-x} \int_{dx} \frac{xe^{-x}}{e^{-2x}} e^{-x}\, {}^x\mathfrak{c} + x\,e^{-x} \int_{dx} \frac{e^{-x}}{e^{-2x}} e^{-x}\, {}^x\mathfrak{c} = -e^{-x} \int_{dx} x\, {}^x\mathfrak{c} + x\,e^{-x} \int_{dx} {}^x\mathfrak{c}$$

$$= -e^{-x} \underbrace{{}^x\mathfrak{c} + x\, {}^x\mathfrak{s}} + x\,e^{-x}\, {}^x\mathfrak{s} = -e^{-x}\, {}^x\mathfrak{c}$$

$$x^2\, \underline{\underline{y}} - 4x\,\underline{y} + 6y = x^4\, {}^x\mathfrak{s} \Longrightarrow \begin{cases} {}^x\mathbb{1}^0 & = x^2 \\ {}^x\mathbb{1}^1 & = x^3 \end{cases} \Longrightarrow {}^xW = x^4$$

$$\Longrightarrow {}^x\P = -x^2 \int_{dx} \frac{x^3}{x^4} \frac{x^{4x}\mathfrak{s}}{x^2} + x^3 \int_{dx} \frac{x^2}{x^4} \frac{x^{4x}\mathfrak{s}}{x^2} = -x^2 \int_{dx} x\, {}^x\mathfrak{s} + x^3 \int_{dx} {}^x\mathfrak{s} = -x^2 \underbrace{{}^x\mathfrak{s} - x\, {}^x\mathfrak{c}} - x^3\, {}^x\mathfrak{c} = -x^2\, {}^x\mathfrak{s}$$

$$U \xrightarrow[\text{stet}]{\dot{\mathfrak{h}}} \mathbb{K}^n$$

$$U \xrightarrow[\text{stet}]{\mathfrak{1}} \mathbb{K}$$

$$U \underset{+}{\overset{}{\blacktriangle}}_n \mathbb{K} = \frac{U \xrightarrow[\text{2-stet diff}]{\mathfrak{Y}} \mathbb{K}}{\underline{\underline{\mathfrak{Y}}} = \dot{\mathfrak{h}}\, \underline{\mathfrak{Y}} + \mathfrak{1} = \mathfrak{h}^j\, {}_j\underline{\mathfrak{Y}} + \mathfrak{1}} \text{ inhom Lsg-Raum}$$

$$\urcorner \in {}^{U}_{+}\blacktriangleright_{n}\mathbb{K} \Rightarrow {}^{U}_{+}\blacktriangleright_{n}\mathbb{K} = \urcorner + {}^{U}\blacktriangleright_{n}\mathbb{K}$$

$$\supset : \quad \ulcorner \in {}^{U}\blacktriangleright_{n}\mathbb{K} \wedge \urcorner \in {}^{U}_{+}\blacktriangleright_{n}\mathbb{K} \Rightarrow \underline{\underline{\ulcorner + \urcorner}} = \underline{\ulcorner} + \underline{\urcorner} = \overbrace{h.\underline{\ulcorner}} + \overbrace{h.\underline{\urcorner} + \ulcorner} = h\,\overbrace{.\underline{\ulcorner} + .\underline{\urcorner}} + \ulcorner \Rightarrow \ulcorner + \urcorner \in {}^{U}_{+}\blacktriangleright_{n}\mathbb{K}$$

$$\subset : \quad \dot{\urcorner} \in {}^{U}_{+}\blacktriangleright_{n}\mathbb{K} \Rightarrow \underline{\underline{\urcorner - \acute{\urcorner}}} = \underline{\urcorner} - \underline{\acute{\urcorner}} = \overbrace{h.\underline{\urcorner} + \ulcorner} - \overbrace{h.\underline{\acute{\urcorner}} + \ulcorner} = h\,\overbrace{.\underline{\urcorner} - .\underline{\acute{\urcorner}}} \Rightarrow \urcorner - \acute{\urcorner} \in {}^{U}\blacktriangleright_{n}\mathbb{K}$$