Limbertwig HeightBrake.app

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1 Introduction

The equation cannot be solved for h directly. We first need to isolate h:

$\theta r = \gamma x - \alpha\sqrt{l^2 - h^2}$ $\theta r - \gamma x = -\alpha\sqrt{l^2 - h^2}$ $-\frac{\theta r - \gamma x}{\alpha} = \sqrt{l^2 - h^2}$ $\left(-\frac{\theta r - \gamma x}{\alpha}\right)^2 = l^2 - h^2$ $h^2 + \left(-\frac{\theta r - \gamma x}{\alpha}\right)^2 = l^2$ $h^2 = l^2 - \left(-\frac{\theta r - \gamma x}{\alpha}\right)^2$ $h = \sqrt{l^2 - \left(-\frac{\theta r - \gamma x}{\alpha}\right)^2}$

Therefore, the solution is $h = \sqrt{l^2 - \left(-\frac{\theta r - \gamma x}{\alpha}\right)^2}$.

$\theta r == 2\pi r - 2\pi\sqrt{(r\hat{}2 - \eta\hat{}2)}$
$2\pi\sqrt{(r\hat{}2 - \eta\hat{}2)} == 2\pi r - \theta r$
$\frac{2\pi r - \theta r}{2\pi} = \sqrt{(r\hat{}2 - \eta\hat{}2)}$
$4\pi^2(r\hat{}2 - \eta\hat{}2) == (2\pi r - r\theta)^2$
$4\pi^2\left(r^2 - \eta^2\right) = (2\pi r - r\theta)^2$
$-4\pi^2\eta\hat{}2 == 4\pi^2 r^2 - 4\pi r^2\theta + r^2\theta^2 - 4\pi^2 r\hat{}2$
$-1\left(4\pi^2 r^2 - 4\pi r^2\theta + r^2\theta^2 - 4\pi^2 r\hat{}2\right)$
$4\pi r^2\theta - r^2\theta^2 == 4\pi^2\eta\hat{}2\sqrt{4\pi r^2\theta - r^2\theta^2} = 2\pi\eta$
$\frac{\sqrt{4\pi r^2\theta - r^2\theta^2}}{2\pi} = \eta$

run through the limbertwig kernel:

$\Lambda \to N\rangle\, \{\sigma, \mathrm{g_a}, \mathrm{b}, \mathrm{c}, \mathrm{d}, \mathrm{e} \ldots \sim\}\, \langle\rightleftharpoons\ \Lambda \to\ \exists\ L \to N, value, value \ldots \langle\exists L \to \{\langle\sim\to \heartsuit \to \epsilon\rangle\, \langle\rightleftharpoons \heartsuit\rangle\rangle \to \{\uparrow\Rightarrow \alpha_i\}\, \langle\rightleftharpoons \forall\alpha_i\rangle\bigcirc \to \{\}\, \langle\rightleftharpoons \uparrow \to \{\mathbf{x} \Rightarrow \mathrm{g_a}\}\, \langle\rightleftharpoons \mathbf{x} \to \{\mathbf{x} \Rightarrow \mathrm{b}\}\, \langle\rightleftharpoons\ \mathbf{x}\ \to\ \{\mathbf{x} \Rightarrow \mathrm{c}\}\, \langle\rightleftharpoons\ \mathbf{x}\ \to\ \{\mathbf{x} \Rightarrow \mathrm{d}\}\, \langle\rightleftharpoons\ \mathbf{x}-\ >\ \{\mathbf{x} \Rightarrow \mathrm{e}\}\, \langle\rightleftharpoons\ \mathbf{x}\ \to \{\sim\to \heartsuit \to \epsilon\rangle\, \langle\rightleftharpoons \sim\rangle \to$

$\exists n \in N \quad s.t \quad \mathcal{L}_f(\uparrow r\, \alpha\, s\, \Delta\, \eta) \wedge \overline{\mu}_{\{\overline{g}(a\, b\, c\, d\, e\ldots \vdots \cdots \uplus\ ) \neq \Omega}$
$\Rightarrow \quad \mathcal{L}_f(\uparrow r\, \alpha\, s\, \Delta\, \eta) \wedge\ \overline{\mu}_{\{\overline{g}(a\, b\, c\, d\, e\ldots \uplus\ ) \neq \Omega}$
$\Leftrightarrow\ \bigcirc^{\{\ \mu\ \in\ \infty\ \Rightarrow\ (\ \Omega\ \uplus\ )\ <\ \Delta\cdot H^{\circ}_{im}\ >}$
$\Rightarrow\ \heartsuit\ \Rightarrow\ \mathcal{L}_f(\uparrow r\, \alpha\, s\, \Delta\, \eta) \wedge\ \overline{\mu}_{\{\overline{g}(a\, b\, c\, d\, e\ldots \uplus\ ) \neq \Omega}$
$\Rightarrow\ \uplus\overset{\approx}{\cdot}\heartsuit\ \Leftrightarrow\ \overset{\approx}{-}\ =\ \Lambda\ \Rightarrow\nwarrow\Rightarrow\ \overline{\mu},\ \overline{g}(a\, b\, c\, d\, e\ldots\ \uplus\ )$
$\Leftarrow\ \Lambda\cdot\ \uplus\heartsuit\ \Rightarrow\ h\ =\ \sqrt{\Delta\hat{}2 - \left\{\frac{\theta\cdot r - \gamma\cdot x}{\alpha\cdot\uparrow}\right\}^{\wedge} 2}$
$\Rightarrow\ \Leftarrow\ \ \Lambda\ \ \Rightarrow\ \ \nwarrow\ \Rightarrow\ \ h\ \ =\ \ \sqrt{\Delta\hat{}2 - \left\{\frac{\theta\cdot r - \gamma\cdot x}{\alpha\cdot\uparrow}\right\}^{\wedge} 2}$ Therefore, the solution is

$h = \sqrt{\Delta^2 - \left(\frac{\theta r - \gamma x}{\alpha\uparrow}\right)^2}$.

$\Rightarrow\ h\ =\ \sqrt{\Delta\hat{}2 - \left\{\frac{\theta\cdot r - \gamma\cdot x}{\alpha\cdot\uparrow}\right\}^{\wedge} 2}$

$\Rightarrow\ \Leftarrow\ \Lambda\ \Rightarrow\ \nwarrow \Rightarrow\ h\ =\ \sqrt{\Delta\hat{}2 - \left\{\frac{\theta\cdot r - \gamma\cdot x}{\alpha\cdot\uparrow}\right\}^{\wedge} 2}$ Therefore, the solution is $h = \sqrt{\Delta^2 - \left(\frac{\theta r - \gamma x}{\alpha\uparrow}\right)^2}$. Therefore, the solution is

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$\Lambda_{3D}\ \rightarrow\ N\rangle \left\{\beta, \theta, \surd \sim\right\} \langle\rightleftharpoons\ \Lambda_{3D}\ \rightarrow\ \exists L_{3D}\ \rightarrow\ N, value, value \ldots \langle\exists L_{3D}\ \rightarrow$
$\{\langle\sim\rightarrow \heartsuit \rightarrow \epsilon\rangle\, \langle\rightleftharpoons \heartsuit\rangle\rangle \rightarrow \{\uparrow\Rightarrow \alpha_i\}\, \langle\rightleftharpoons \forall\alpha_i\rangle \rightarrow \left\{\surd\right\} \langle\rightleftharpoons \uparrow \rightarrow \{\mathbf{x} \Rightarrow \mathrm{a}\}\, \langle\rightleftharpoons \mathbf{x}\rangle - >$
$\{\mathbf{x} \Rightarrow \mathrm{b}\}\, \langle\rightleftharpoons\ \mathbf{x}-\ >\ \{\mathbf{x} \Rightarrow \mathrm{c}\}\, \langle\rightleftharpoons\ \mathbf{x}-\ >\ \{\mathbf{x} \rightarrow \mathrm{d}\}\, \langle\rightleftharpoons\ \mathbf{x}-\ >\ \{\mathbf{x} \Rightarrow \mathrm{e}\}\, \langle\rightleftharpoons\ \mathbf{x}-\ >$
$\{\sim\rightarrow \heartsuit \rightarrow \epsilon\rangle\, \langle\rightleftharpoons \sim\rangle - >$
$\exists n \in N \quad s.t \quad \mathcal{L}_{3D}(\uparrow \beta\, \theta\, \surd) \wedge\ \overline{\mu}_{\{\overline{g}(a\, b\, c\, d\, e \ldots\ \uplus\ ) \neq\ \Omega}$
$\Rightarrow \quad \mathcal{L}_{3D}(\uparrow \beta\, \theta\, \surd) \wedge\ \overline{\mu}_{\{\overline{g}(a\, b\, c\, d\, e \ldots\ \uplus\ ) \neq\ \Omega}$
$\Leftrightarrow\ \bigcirc^{\{\ \mu\ \in\ \infty\ \Rightarrow\ (\ \Omega\ \uplus\ )\ <\ \Delta\cdot H^{\circ}_{im}\ >}$
$\Rightarrow\ \heartsuit\ \Rightarrow\ \mathcal{L}_3 D(\uparrow \beta\, \theta\, \surd) \wedge\ \overline{\mu}_{\{\overline{g}(a\, b\, c\, d\, e \ldots\ \uplus\ ) \neq\ \Omega}$
$\Rightarrow\ \uplus \overset{\approx}{\cdot} \heartsuit\ \Leftrightarrow\ \overset{\approx}{-}\ =\ \Lambda_{3D}\ \Rightarrow \nwarrow \Rightarrow\ \overline{\mu},\ \overline{g}(a\, b\, c\, d\, e \ldots\ \uplus\ )$
$\Leftarrow\ \Lambda_{3D} \cdot\ \uplus \heartsuit$

$$h = \frac{\sqrt{(x \otimes \gamma \oplus -l \otimes \alpha) \otimes \left(\sqrt{1 \otimes \sin^2 \beta \oplus (r \otimes \theta \oplus l \otimes \alpha) \otimes (1 \otimes \cos^2 \beta \oplus (x \otimes \gamma \oplus -l \otimes \alpha))}\right)}}{\alpha}$$

Since the lateral algebra follows list associativity, the above equation is equivalent to the original height equation.

$$v = \frac{(x \otimes \gamma \oplus -l \otimes \alpha) \otimes \sqrt{c^2 \otimes \sin^2 \beta \oplus (c^2 \otimes 1)}}{(x \otimes \gamma \oplus -l \otimes \alpha) \otimes \sqrt{1 \otimes \sin^2 \beta \oplus (r \otimes \theta \oplus l \otimes \alpha)}} =$$

$$(\mathrm{x} \otimes\gamma \oplus -l \otimes \alpha) \otimes \sqrt{1 \otimes \sin^2 \beta \oplus (r \otimes \theta \oplus l \otimes \alpha)}$$

$\Lambda \rightarrow N\rangle\, \{,\mathrm{x}, \mathrm{l}, r, \alpha, \gamma, \theta, \beta, \mathrm{v} \ldots \sim\}\, \langle\rightleftharpoons \Lambda \rightarrow\ \exists\ L \rightarrow N, value, value \ldots \langle\exists L \rightarrow$
$\{\langle\sim\rightarrow \heartsuit \rightarrow \epsilon\rangle\, \langle\rightleftharpoons \heartsuit\rangle\rangle \rightarrow \{\ \uparrow\Rightarrow c\}\, \langle\rightleftharpoons \forall c\rangle \bigcirc\ \{\uparrow\Rightarrow\ \ \mathrm{x}, \mathrm{l}, r, \alpha, \gamma, \theta, \beta, \mathrm{v}\ \}\, \langle\ \rightleftharpoons \forall[\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v}] \rightarrow$
$\left\{\uparrow\Rightarrow\ \ \frac{\sqrt{-c^2 l^2 \alpha^2 + c^2 x^2 \gamma^2 - 2c^2 r x \gamma\theta + c^2 r^2 \theta^2 + c^2 l^2 \alpha^2 \sin\beta^2}}{\sqrt{-l^2\alpha^2 + x^2\gamma^2 - 2rx\gamma\theta + r^2\theta^2 + l^2\alpha^2 \sin\beta^2}}\ \right\} \langle\rightleftharpoons \uparrow \rightarrow$
$\left\{ \frac{\uparrow\Rightarrow\mathrm{v},\ \equiv v = \{\sqrt{-c^2 l^2 \alpha^2 + c^2 x^2 \gamma^2 - 2c^2 r x \gamma\theta + c^2 r^2 \theta^2 + c^2 l^2 \alpha^2 \sin\beta^2}}{\sqrt{-l^2\alpha^2 + x^2\gamma^2 - 2rx\gamma\theta + r^2\theta^2 + l^2\alpha^2 \sin\beta^2}\}\}\langle\rightleftharpoons\uparrow} \right\rangle \rightarrow \{\sim\rightarrow \heartsuit \rightarrow \epsilon\rangle\, \langle\rightleftharpoons$
$\sim\rangle - > \exists n \in N \quad s.t \quad \mathcal{L}_f(\uparrow c\,\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v}) \wedge \overline{\mu}_{\{\overline{g}([\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v},\ \equiv v]\ \uplus\ \ ) \neq\ \Omega}$

$$\Rightarrow \quad \mathcal{L}_f(\uparrow c\,\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v}) \wedge\ \overline{\mu}_{\{\overline{g}([\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v},\ \equiv v]\ \uplus\ ) \neq\ \Omega}$$

$$\Leftrightarrow\ \bigcirc^{\{\ \mu\ \in\ \infty\ \Rightarrow\ (\ \Omega\ \uplus\ )\ <\ \Delta\cdot H_{im}^{\circ}\ >}$$

$$\Rightarrow\ \heartsuit\ \Rightarrow\ \mathcal{L}_f(\uparrow c\,\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v}) \wedge\ \overline{\mu}_{\{\overline{g}([\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v},\ \equiv v]\ \uplus\ ) \neq\ \Omega}$$

$$\Rightarrow\ \uplus\overset{\approx}{\cdot}\heartsuit\ \Leftrightarrow\ \overset{\approx}{-}\ =\ \Lambda\ \Rightarrow\nwarrow\Rightarrow\ \overline{\mu},\ \overline{g}([\mathrm{x},\ \mathrm{l},\ r,\ \alpha,\ \gamma,\ \theta,\ \beta,\ \mathrm{v},\ \equiv v]\ \uplus\ )$$

Therefore, the solution is $v = \frac{\sqrt{-c^2l^2\alpha^2+c^2x^2\gamma^2-2c^2rx\gamma\theta+c^2r^2\theta^2+c^2l^2\alpha^2\sin\beta^2}}{\sqrt{-l^2\alpha^2+x^2\gamma^2-2rx\gamma\theta+r^2\theta^2+l^2\alpha^2\sin\beta^2}}$.

$$\left[(1\otimes\sin^2\beta\oplus(r\otimes\theta\oplus l\otimes\alpha))\oplus(x\otimes\gamma\oplus -l\otimes\alpha)\right]^2\alpha$$

$$= \sqrt{l^2\alpha^2 - x^2\gamma^2 + 2rx\gamma\theta - r^2\theta^2 + \frac{(x\otimes\gamma\oplus -l\otimes\alpha)\otimes[c^2\otimes(\sin^2\beta\oplus 1)]^2}{(x\otimes\gamma\oplus -l\otimes\alpha)\otimes[1\otimes\sin^2\beta\oplus(r\otimes\theta\oplus l\otimes\alpha)]^2}\alpha}$$

$$= \frac{\sqrt{l^2\alpha^2-x^2\gamma^2+2rx\gamma\theta-r^2\theta^2+c^4\sin^4\beta-c^2\sin^2\theta+c^2}}{\alpha}$$