From :

$\tan(1)\ \left|\begin{array}{l}\text{confrac}\\ \text{fraction}\\ 2\cdot 4\end{array}\right.\rightarrow 1+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{3+\cfrac{1}{1+\cfrac{1}{5+\cfrac{1}{1+\cfrac{1}{7+\cfrac{1}{1+\cfrac{1}{9+\frac{1}{1}}}}}}}}}}$

$\tan(x)\ \left|\begin{array}{l}\text{confrac}\\ \text{fraction}\\ 3\cdot 4\end{array}\right.\rightarrow \cfrac{x}{1+\cfrac{x^2}{-3+\cfrac{x^2}{5+\cfrac{x^2}{-7+\cfrac{x^2}{9+\frac{x^2}{-11}}}}}}$

$\frac{45}{82}\ \left|\begin{array}{l}\text{confrac}\\ \text{fraction}\end{array}\right.\rightarrow \cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{4+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\frac{1}{2}}}}}}}$

$\left(\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{4+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\frac{1}{2}}}}}}}\right)-\left(\cfrac{1}{2+\cfrac{1}{-6+\cfrac{1}{3+\frac{1}{-3}}}}\right)$ simplify

The question :

Is there a Program Function to make the partial denomin

$\frac{45}{82}, \text{confrac}, \text{fraction}, \rightarrow, \cfrac{1}{2+\cfrac{1}{-6+\cfrac{1}{3+\frac{1}{-3}}}}$

$a := \frac{45}{82}$

$b := \text{trunc}(a) \rightarrow 0$

$c := \text{floor}(a) \rightarrow 0$

$bb := \text{trunc}\left(\frac{1}{a}\right) \rightarrow 1$

$cc := \text{floor}\left(\frac{1}{a}\right) \rightarrow 1$

$\frac{45}{82}\ \xrightarrow{confrac,\ fraction}\ \cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{4+\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\frac{1}{2}}}}}}}$

$\frac{45}{82}$

$\text{denom}(a) \rightarrow 82$

$\text{numer}(a) \rightarrow 45$

Only the first step of programing for a=45/82.

$a := \frac{45}{82}$ $aa := \text{denom}(a) \to 82$ $ab := \text{numer}(a) \to 45$

$a := \frac{-8}{45}$ $b := \text{trunc}(a) \to 0$ $c := \text{floor}(a) \to -1$

$bb := \text{trunc}\left(\frac{1}{a}\right) \to -5$ $cc := \text{floor}\left(\frac{1}{a}\right) \to -6$

$a := \frac{-3}{-8}$ $b := \text{trunc}(a) \to 0$ $c := \text{floor}(a) \to 0$

$bb := \text{trunc}\left(\frac{1}{a}\right) \to 2$ $cc := \text{floor}\left(\frac{1}{a}\right) \to 2$

$a := \frac{1}{-3}$ $b := \text{trunc}(a) \to 0$ $c := \text{floor}(a) \to -1$

$bb := \text{trunc}\left(\frac{1}{a}\right) \to -3$ $cc := \text{floor}\left(\frac{1}{a}\right) \to -3$

$$
\begin{aligned}
&conf2(x, y) := \\
&\quad i \leftarrow 0 \\
&\quad ad \leftarrow x \\
&\quad an \leftarrow y \\
&\quad c_i \leftarrow \text{trunc}\left(\frac{ad}{an}\right) + 1 \\
&\quad ad \leftarrow ad - c_i \cdot an \\
&\quad c_{i+1} \leftarrow \text{floor}\left(\frac{an}{ad}\right) \\
&\quad an \leftarrow an - c_{i+1} \cdot ad \\
&\quad i \leftarrow i + 2 \\
&\quad c_i \leftarrow \text{trunc}\left(\frac{ad}{an}\right) + 1 \\
&\quad ad \leftarrow ad - c_i \cdot an \\
&\quad c_{i+1} \leftarrow \text{floor}\left(\frac{an}{ad}\right) \\
&\quad an \leftarrow an - c_{i+1} \cdot ad \\
&\quad \text{return } c
\end{aligned}
$$

$$
conf2(aa, ab) \to \begin{bmatrix} 2 \\ -6 \\ 3 \\ -3 \end{bmatrix}
$$

$$conf2(82,46) \to \begin{bmatrix} 2 \\ -5 \\ 3 \\ -2 \end{bmatrix} \qquad \cfrac{1}{2+\cfrac{1}{-5+\cfrac{1}{3+\cfrac{1}{-2}}}} \to \frac{23}{41} \qquad \frac{46}{82} \to \frac{23}{41}$$

$$conf2(31,21) \to \begin{bmatrix} 2 \\ -2 \\ 12 \\ -1 \end{bmatrix} \qquad \cfrac{1}{2+\cfrac{1}{-2+\cfrac{1}{12+\cfrac{1}{-1}}}} \to \frac{21}{31} \qquad \frac{21}{31} \to \frac{21}{31}$$