

$$\text{Fraction}(C) := \left\{ \begin{array}{l} R \leftarrow \frac{1}{C_{\text{last}(C)}} \\ \text{for } i \in \text{last}(C) - 1 \dots \text{ORIGIN} \\ \quad \left\{ \begin{array}{l} R \leftarrow \frac{1}{C_i - R} \end{array} \right. \\ R \end{array} \right.$$

$$\text{Fracture}(C) := \left\{ \begin{array}{l} R_{\text{ORIGIN}} \leftarrow \frac{1}{C_{\text{ORIGIN}}} \\ \text{for } i \in \text{ORIGIN} + 1 \dots \text{last}(C) \\ \quad R_i \leftarrow \text{Fraction}(\text{submatrix}(C, \text{ORIGIN}, i, \text{ORIGIN}, \text{ORIGIN})) - \sum_{f = \text{ORIGIN}}^{i-1} R_f \\ R \text{ simplify} \rightarrow \end{array} \right.$$

$$\text{FractEq}(C) := \left\{ \begin{array}{l} \text{Lhs} \leftarrow \text{Fraction}(C) \\ \text{F} \leftarrow \text{Fracture}(C) \text{ simplify} \rightarrow \\ \text{Rhs} \leftarrow \sum \mathbf{F} \\ \text{return Lhs} = \text{Rhs} \end{array} \right.$$

$$\text{Fraction} \left(\begin{bmatrix} C_0 \\ C_1 \\ C_2 \end{bmatrix} \right) \rightarrow \frac{1}{C_0 - \frac{1}{C_1 - \frac{1}{C_2}}}$$

$$\text{Fracture} \left(\begin{bmatrix} C_0 \\ C_1 \\ C_2 \end{bmatrix} \right) \rightarrow \text{Fracture} \left(\begin{bmatrix} C_0 \\ C_1 \\ C_2 \end{bmatrix} \right)$$

$$\text{FractEq} \left(\begin{bmatrix} C_0 \\ C_1 \\ C_2 \end{bmatrix} \right) \rightarrow \text{FractEq} \left(\begin{bmatrix} C_0 \\ C_1 \\ C_2 \end{bmatrix} \right)$$

$$\text{Fraction} \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \\ C_3 \\ C_4 \end{array} \right) \rightarrow \frac{1}{C_0 - \frac{1}{C_1 - \frac{1}{C_2 - \frac{1}{C_3 - \frac{1}{C_4}}}}}$$

$$\text{Fracture} \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \\ C_3 \\ C_4 \end{array} \right) \rightarrow \text{Fracture} \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \\ C_3 \\ C_4 \end{array} \right)$$

$$\text{FractEq} \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \\ C_3 \\ C_4 \end{array} \right) \rightarrow \text{FractEq} \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \\ C_3 \\ C_4 \end{array} \right)$$