

Diagrammatic equation showing the multiplication of two tree diagrams:

Left side (Product):

- Tree 1: Root x with children y and z .
- Tree 2: Root α with child β .

Right side (Result):

- Tree: Root $\langle x, \alpha \rangle$ with children $\langle z, \beta \rangle$ and $\langle y, \alpha \rangle$.

The equation is represented as:

$$\begin{array}{c} y \\ \bullet \\ \diagdown \\ x \end{array} \begin{array}{c} z \\ \bullet \\ \diagup \\ x \end{array} \times \begin{array}{c} \bullet \quad \beta \\ | \\ \bullet \quad \alpha \end{array} = \begin{array}{c} \langle z, \beta \rangle \\ | \\ \langle z, \alpha \rangle \end{array} \begin{array}{c} \diagdown \\ \langle x, \beta \rangle \\ \diagup \\ \langle x, \alpha \rangle \end{array} \begin{array}{c} \langle y, \beta \rangle \\ | \\ \langle y, \alpha \rangle \end{array}$$