

Diagrammatic equation showing the multiplication of two tree diagrams:

Left side (Product):

- Tree 1: Root  $x$  with children  $y$  and  $z$ .
- Tree 2: Root  $\alpha$  with child  $\beta$ .

Right side (Result):

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