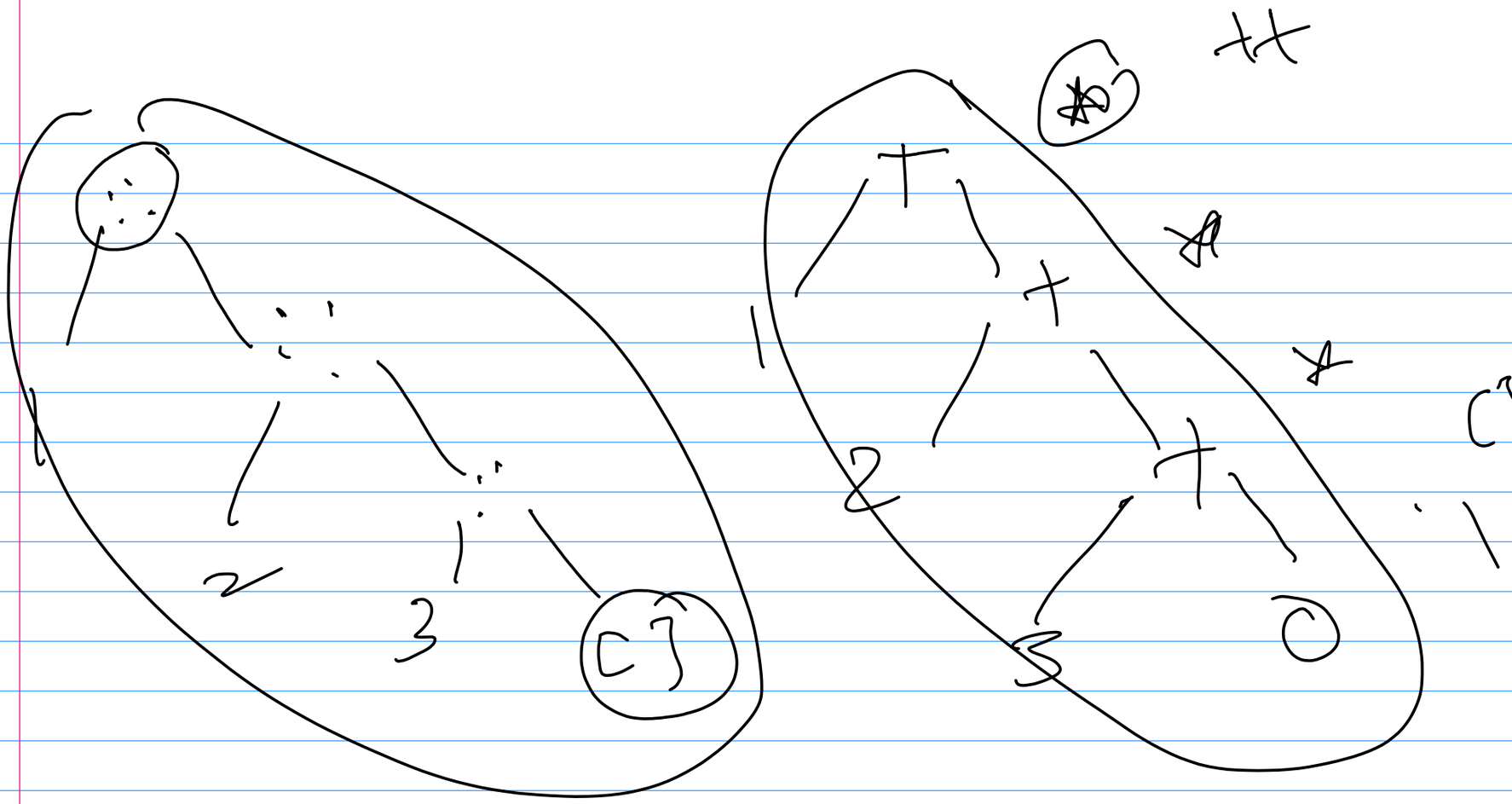
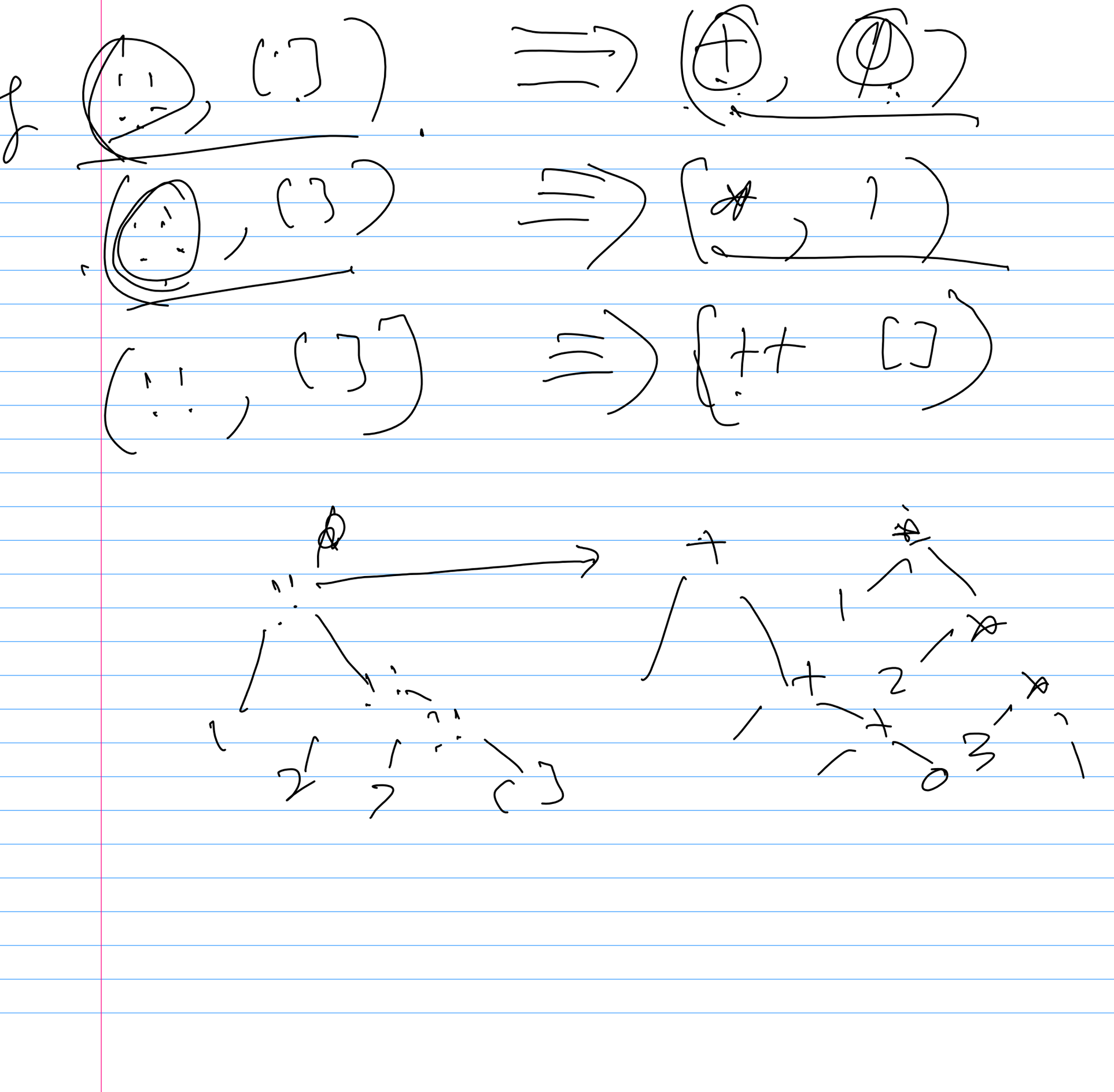
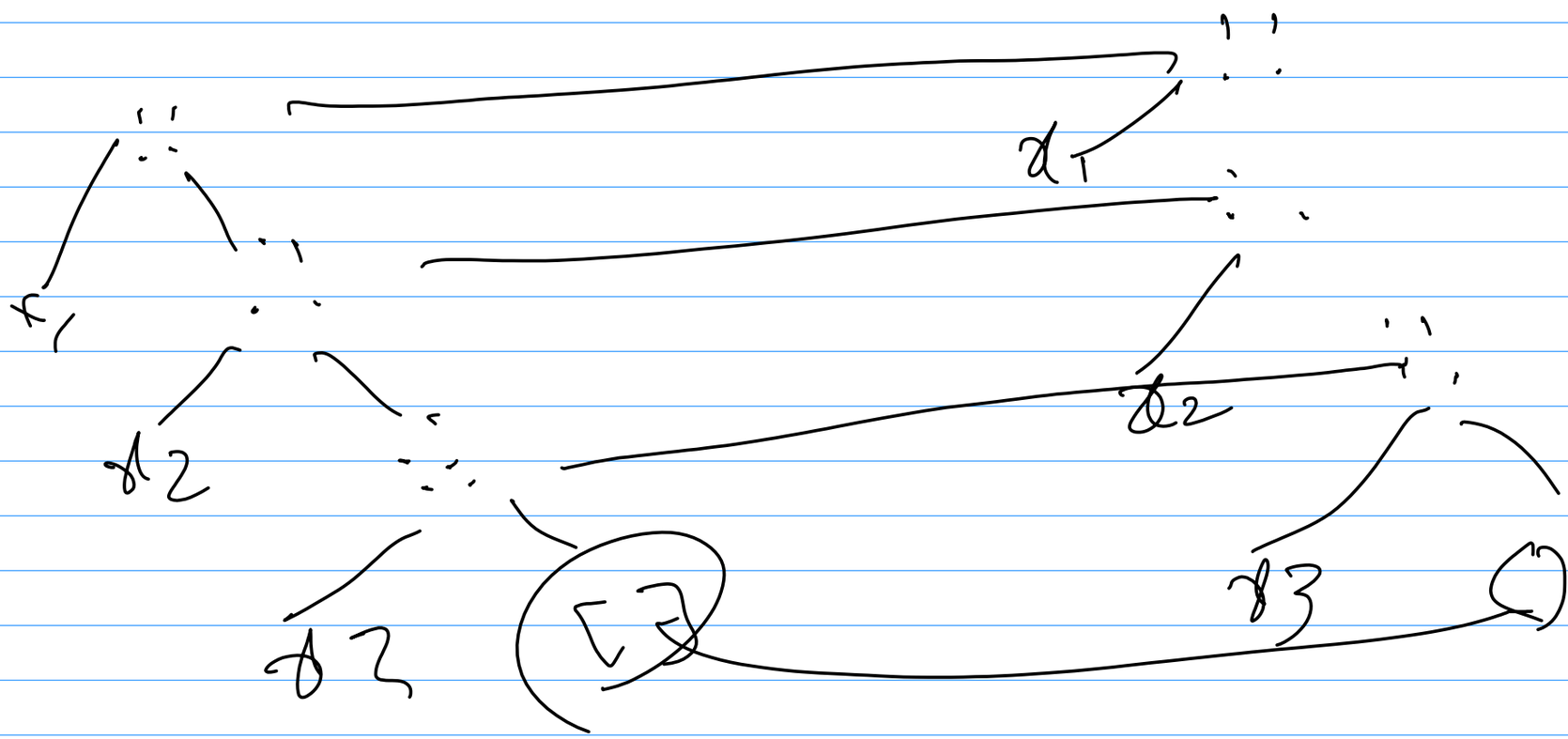
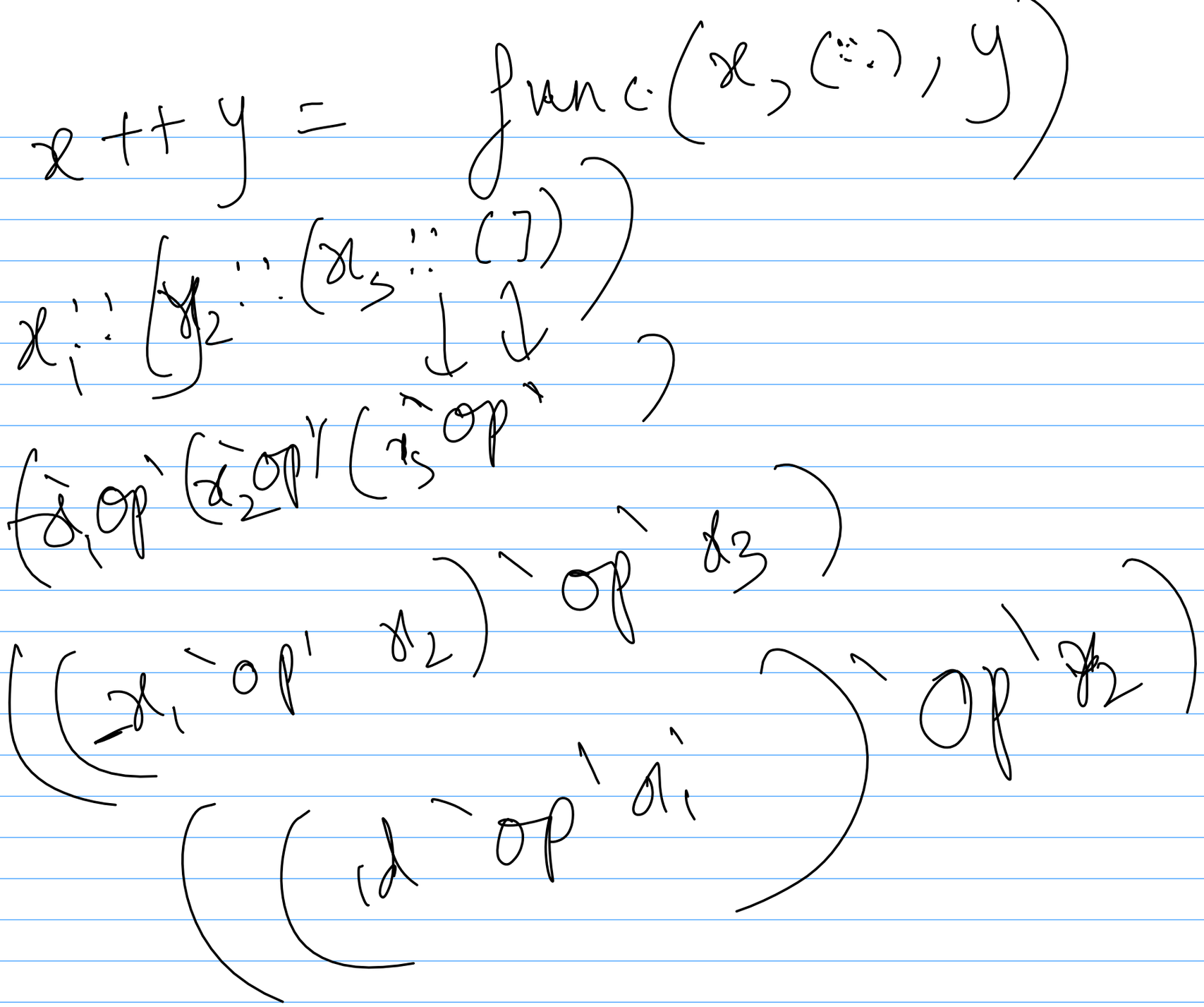




reduce : operator → identity → list → ?

(op, id, lst)





$[x_1, x_2, x_3]$

$((id \ `op` \ x_1) \ `op` \ x_2) \ `op` \ x_3$

$x_1 \ `op` \ (x_2 \ `op` \ (x_3 \ `op` \ id))$

$\tilde{op} \cdot y \cdot x = op \cdot x \cdot y$

Newman Law

$func1 = ([x_1, x_2, x_3], op, id)$

$x_3 \ op \ (x_2 \ op \ (x_1 \ op \ id))$

$((id \ \tilde{op} \ x_1) \ \tilde{op} \ x_2) \ \tilde{op} \ x_3$

Newman's Law

func 1 : $(op, [x_1 x_2 x_3], id)$

reversal $((id\ op\ x_3)\ op\ x_2)\ op\ x_1$

$[\,] \longrightarrow id$

$[x_1] \longrightarrow id \; op \; x_1$

$[x_1, x_2] \longrightarrow (id \; op \; x_1) \; op \; x_2$

$[x_1 \; x_2 \; x_3] \longrightarrow ((id \; op \; x_1) \; op \; x_2) \; op \; x_3$