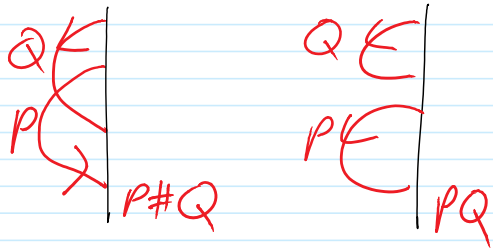


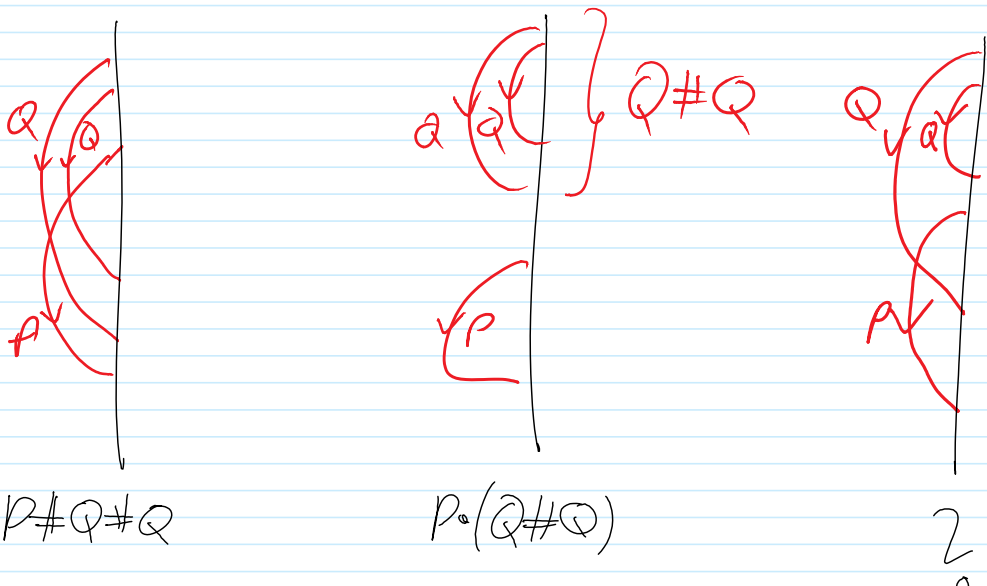
# Comparing Products

August-05-14 8:53 PM



$$P \# Q = PQ + \partial_Q P \quad \partial_Q (P_1 \# P_2) := \partial_Q (P_1) \# P_2 + P_1 \# \partial_Q P_2$$

$$P \# Q \# Q = (PQ) \# Q + (\partial_Q P) \# Q$$



Can I write every descending diagram using  $\#$  &  $\circ$ ?

$$P \# (Q \circ Q) =$$

$$P \circ (Q_1 \# Q_2) = \partial_{Q_2} \partial_{Q_1} P + (\partial_{Q_1} P) \# Q_2 + P \# Q_1 \# Q_2 + (\partial_{Q_2} P) \# Q_1$$

What about  $(Q_1 \# Q_2) \cdot P$  ?

$P \psi$

$\parallel$

$$Q_1 \# Q_2 \# P + (\partial_p Q_1) \# Q_2$$

$$+ Q_1 \# (\partial_p Q_2)$$

$Q_1 \left( \begin{array}{c} Q_2 \\ \psi \end{array} \right)$

$$\Rightarrow (L_{\#}^Q) \cdot P = (L_{\#}^Q \# P) +$$