

formulas for glue box:

$$S = (5 \Lambda \overline{g}) V(T \Lambda g)$$

$$T = (5 \Lambda \overline{p}) V(T \Lambda p)$$

$$P = g^{L} V(p^{L} \Lambda p^{R})$$

$$Q = g^{L} V(p^{L} \Lambda q^{R})$$

S is what larger box produces if there is no carry in; T is what it produces if there IS carry in; note that $g \rightarrow p$