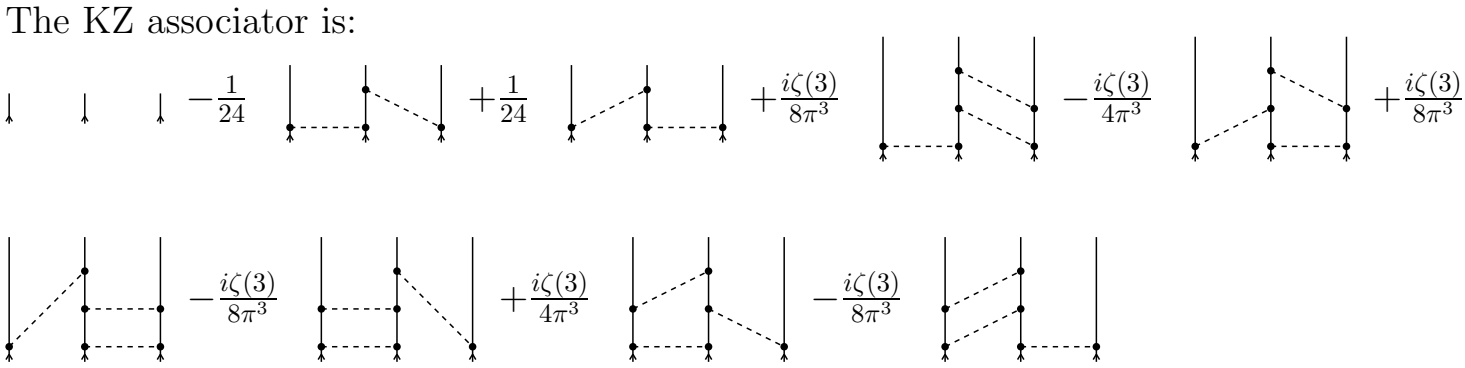
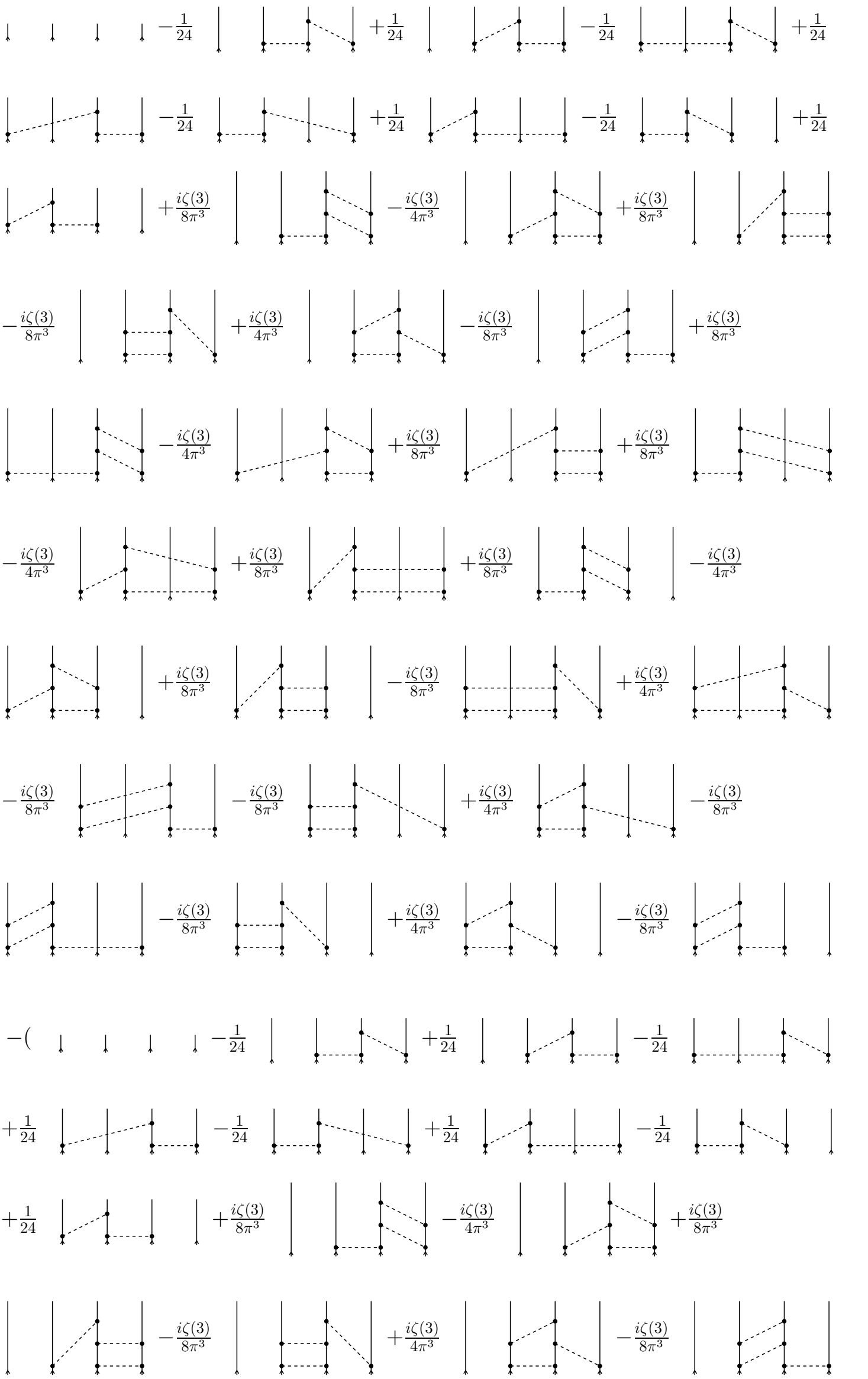
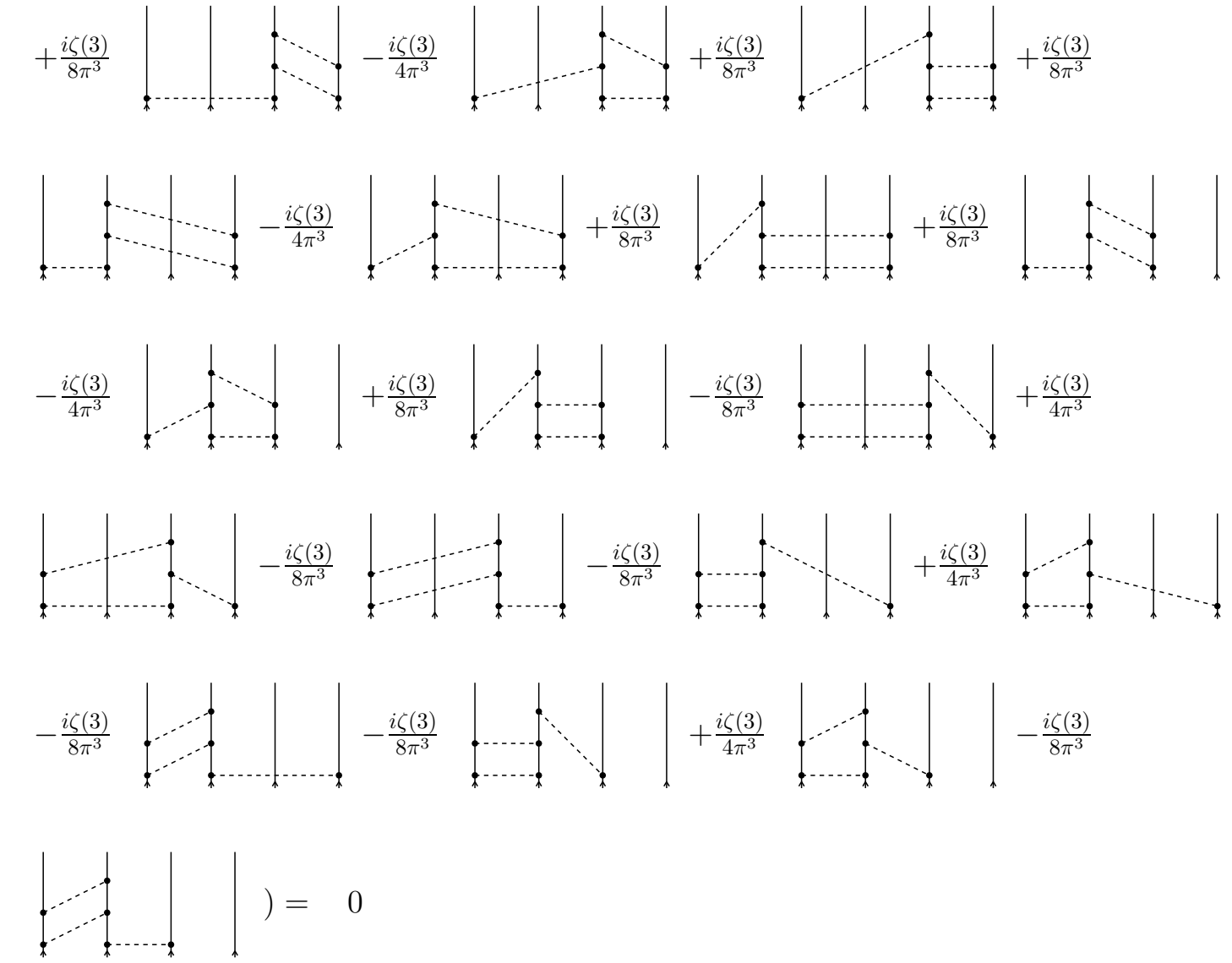
The KZ associator is:



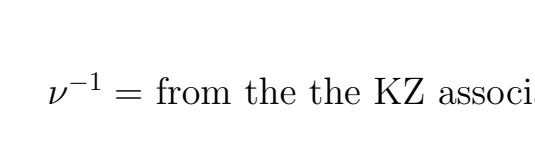
Pentagon up to order 3



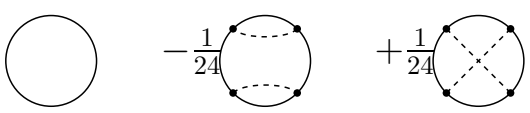


$= \quad 0$

ν^{-1} = from the [CMD] book on page 345 is

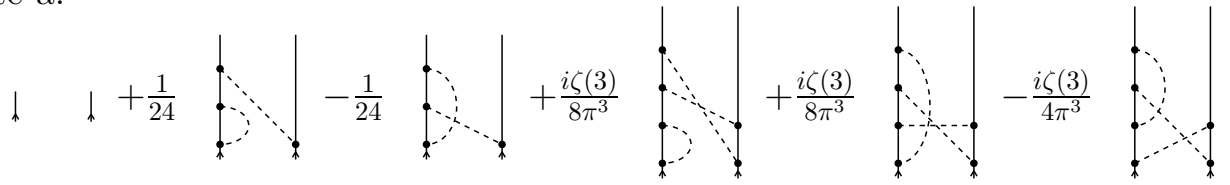


ν^{-1} = from the the KZ associator

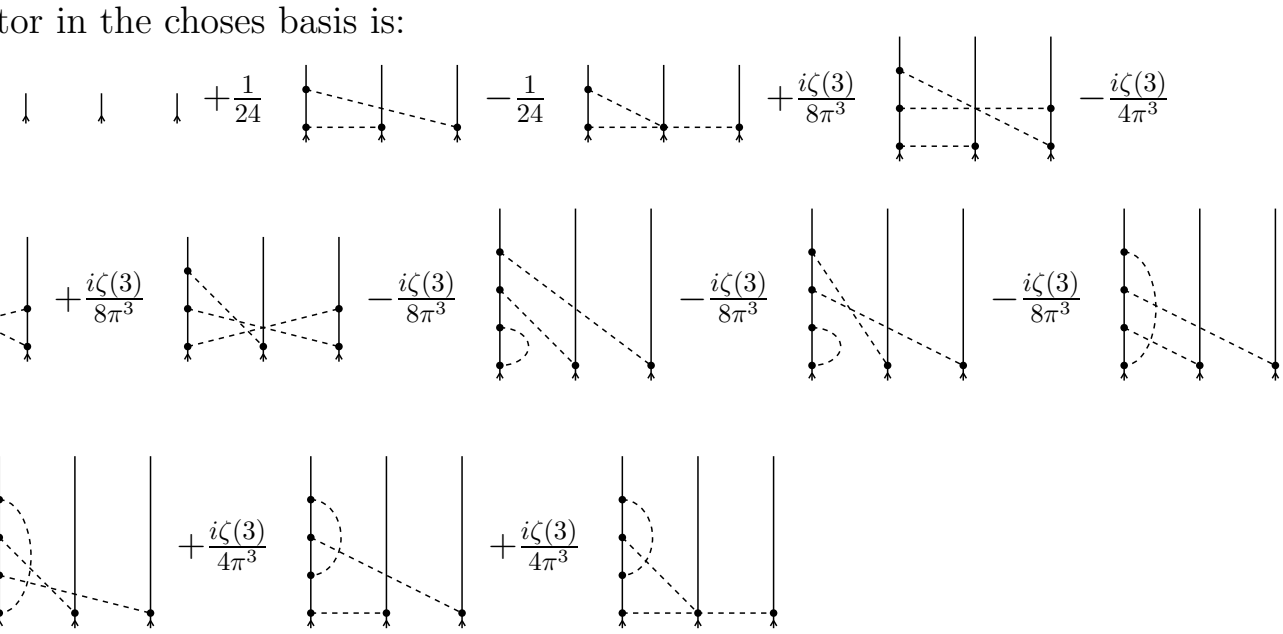


Their difference: $\quad 0$

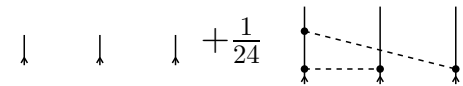
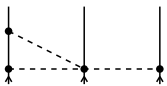
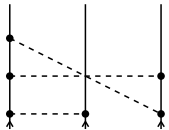
Calculate a:

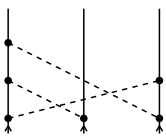
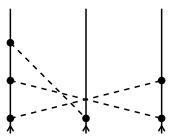
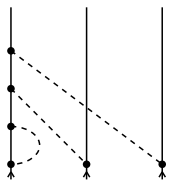
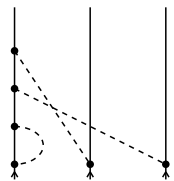
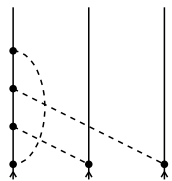
$a \quad =$ 

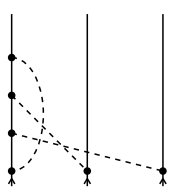
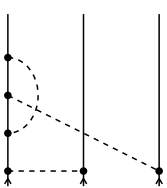
Associator in the choses basis is:

$\Phi \quad =$ 

Associator twisted by a, in the choses basis, is:

$\Phi^a \quad =$  $+\frac{1}{24}$ $-\frac{1}{24}$  $-\frac{i\zeta(3)}{8\pi^3}$  $+\frac{i\zeta(3)}{4\pi^3}$

 $-\frac{i\zeta(3)}{8\pi^3}$  $+\frac{i\zeta(3)}{8\pi^3}$  $+\frac{i\zeta(3)}{8\pi^3}$  $+\frac{i\zeta(3)}{8\pi^3}$ 

$+\frac{i\zeta(3)}{8\pi^3}$  $-\frac{i\zeta(3)}{4\pi^3}$  $-\frac{i\zeta(3)}{4\pi^3}$