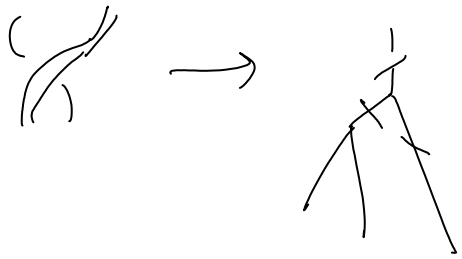
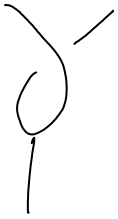
Deriving the pentagon and the hexagon

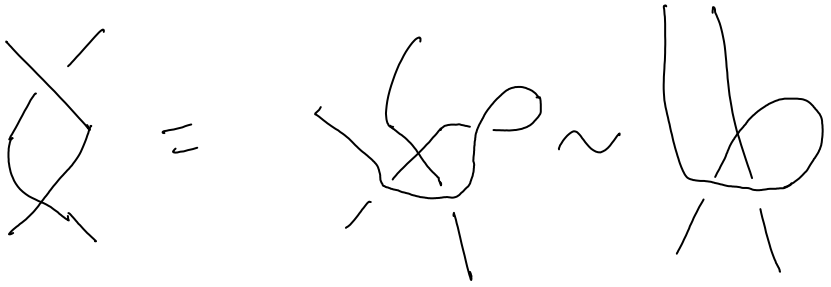
April-20-08
2:59 PM

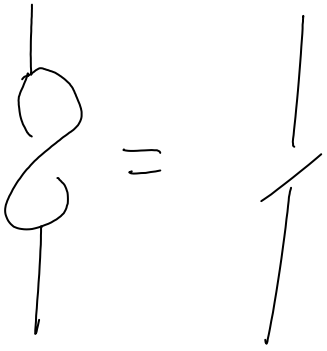


I still don't understand
F ◊
(maybe also not R)

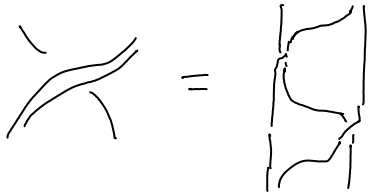


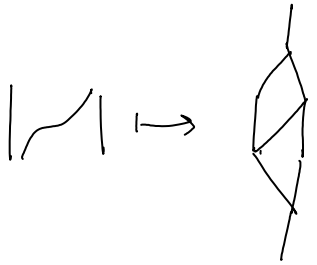
$F = RF^{2,1}\ell^{-t/2}$

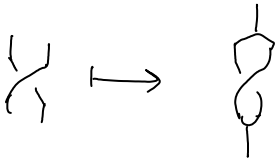


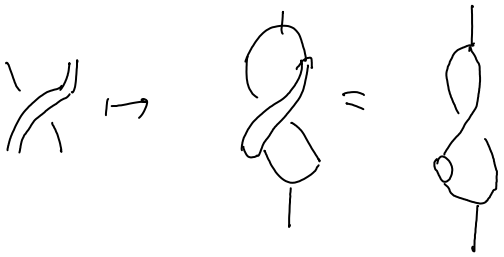


Connected sum is well-defined in semi-naive virtuals ??? Probably not.



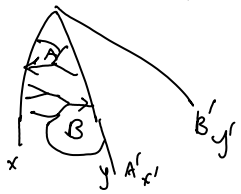






what is triality on $tdur_2$?

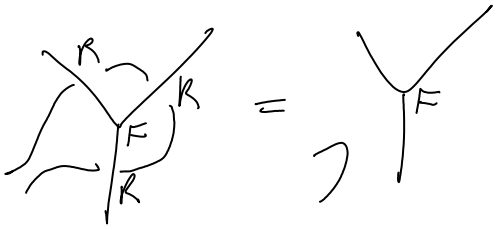
$$(A(x,y),\ B(x,y)) \xmapsto{T} (B(y-x,-x)-A(y-x,-x),\ -A(y-x,-x))$$
$$\xmapsto{T} (-B(-y,x-y),\ A(-y,x-y)-B(-y,x-y))$$
$$\xmapsto{T} (A(x,y),\ B(x,y))$$



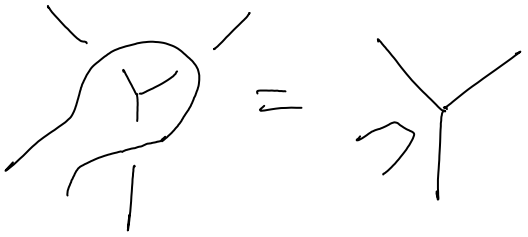
!

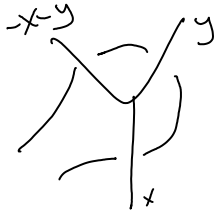
0

F's trick:



and





$$\ell^x \ell^y \ell^{-x-y} = (1+x+\tfrac{x^2}{2})(1+y+\tfrac{y^2}{2})(1-x-y+\tfrac{(x+y)^2}{2})$$
$$= 1 + xy - x^2 - xy - yx - y^2 + \tfrac{x^2}{2} + \tfrac{y^2}{2} + \tfrac{x^2}{2} + \tfrac{y^2}{2} + \tfrac{xy+yx}{2}$$
$$= (xy-yx)/2 = [x,y]/2$$

$$T[x,y] = [y,-x-y] = [y,-x] = [x,y]$$

$F =$  so far so good.