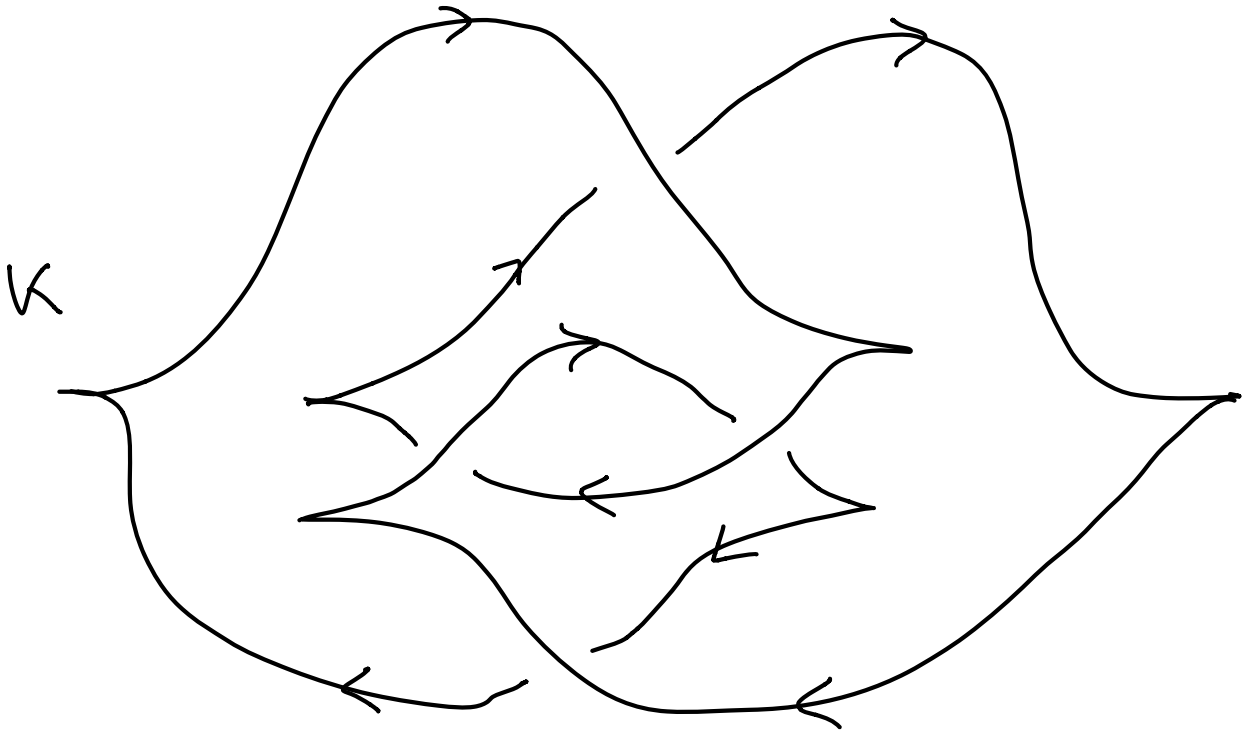
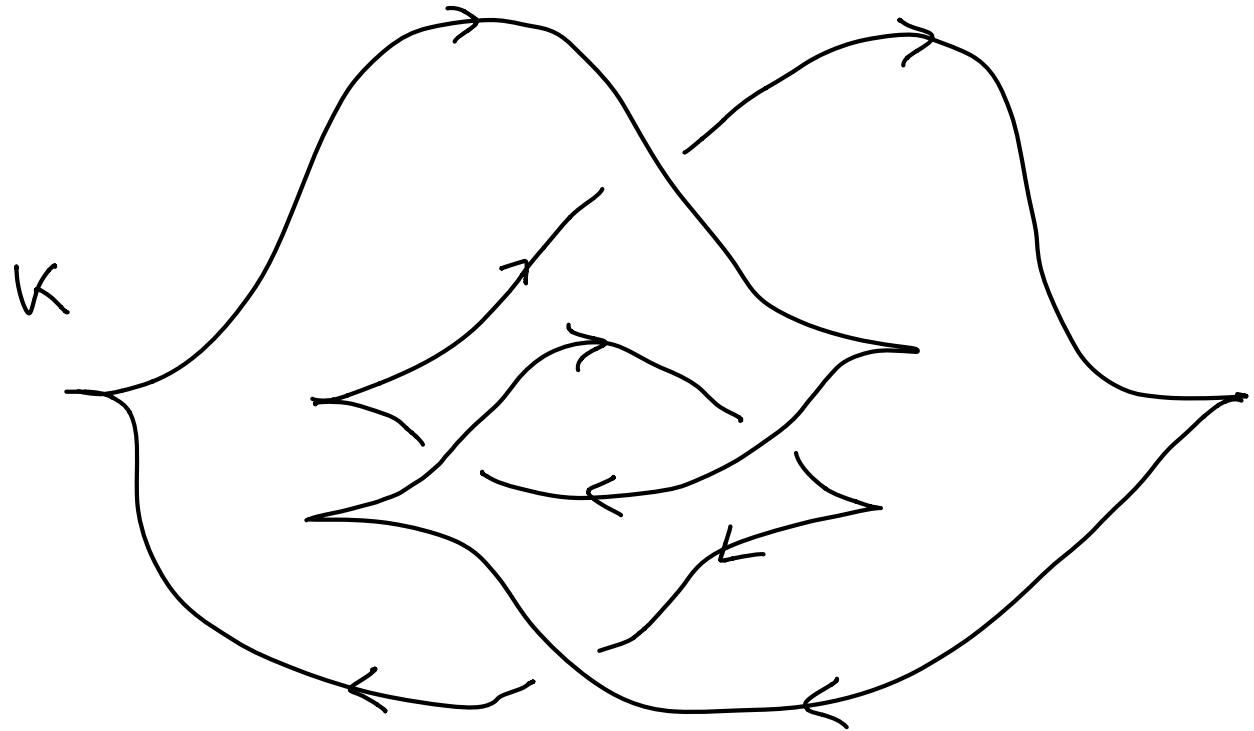
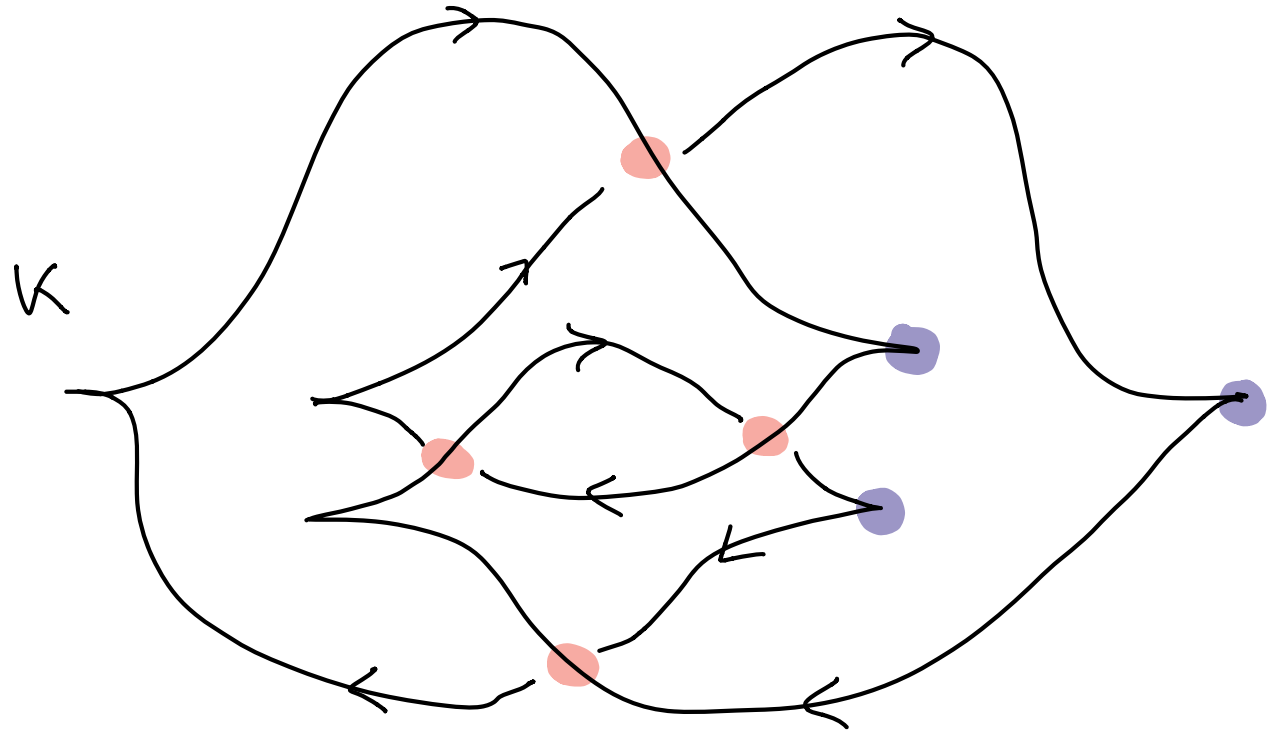
A DIAGRAM FOR THE POSITIVE 0-WHITEHEAD DOUBLE OF THE TREFOIL WITH $TB = +1$.

Example: Trefoil knot

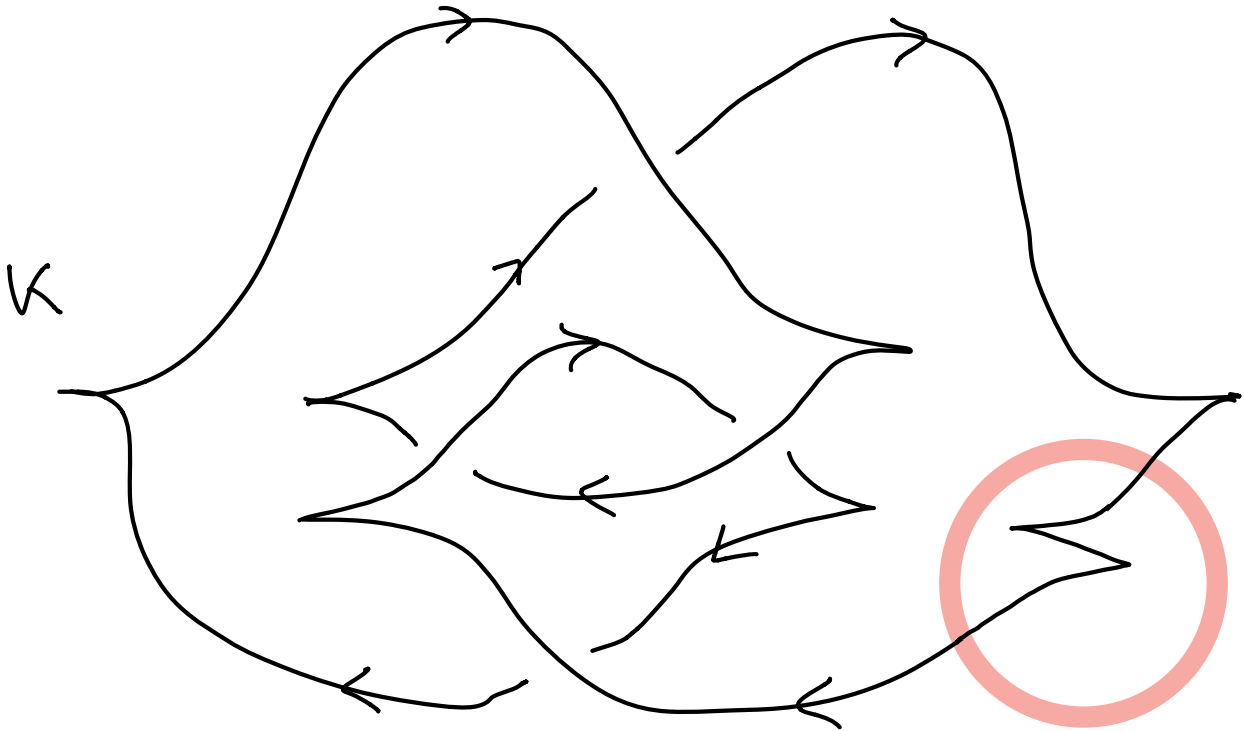




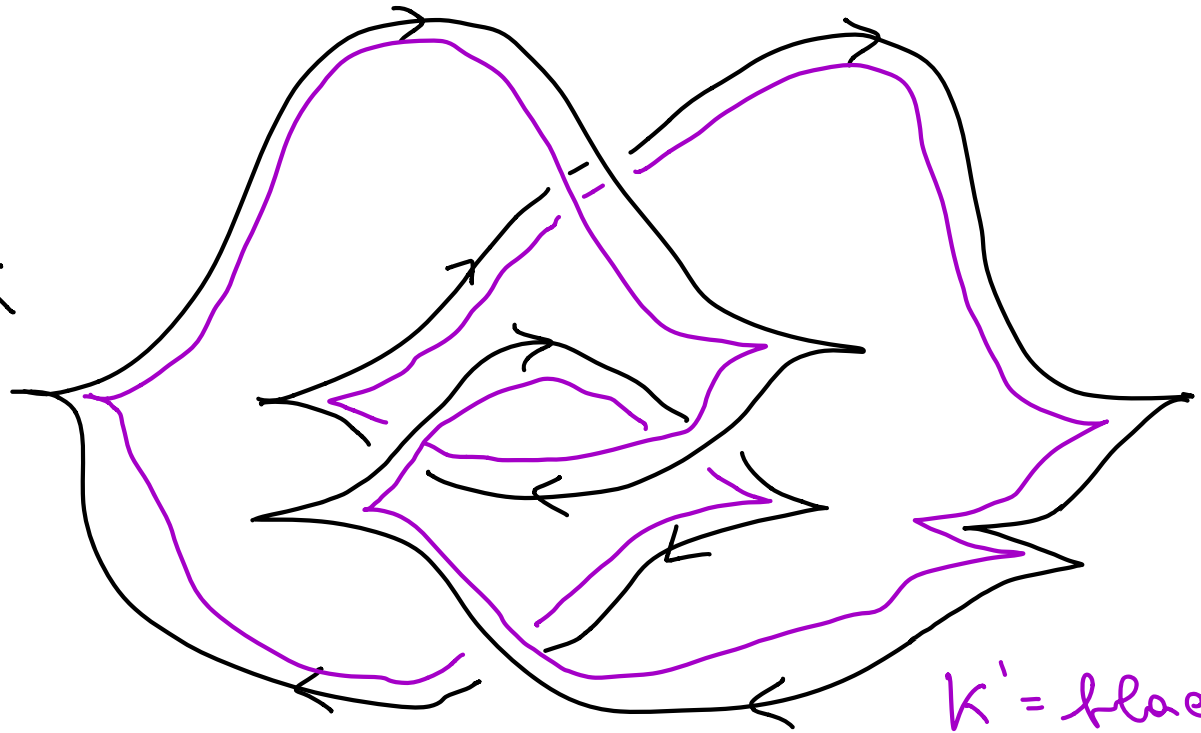
$TB(K) = w(K) - c(K) =$



$$TB(K) = w(K) - c(K) = 4 - 3 = 1$$



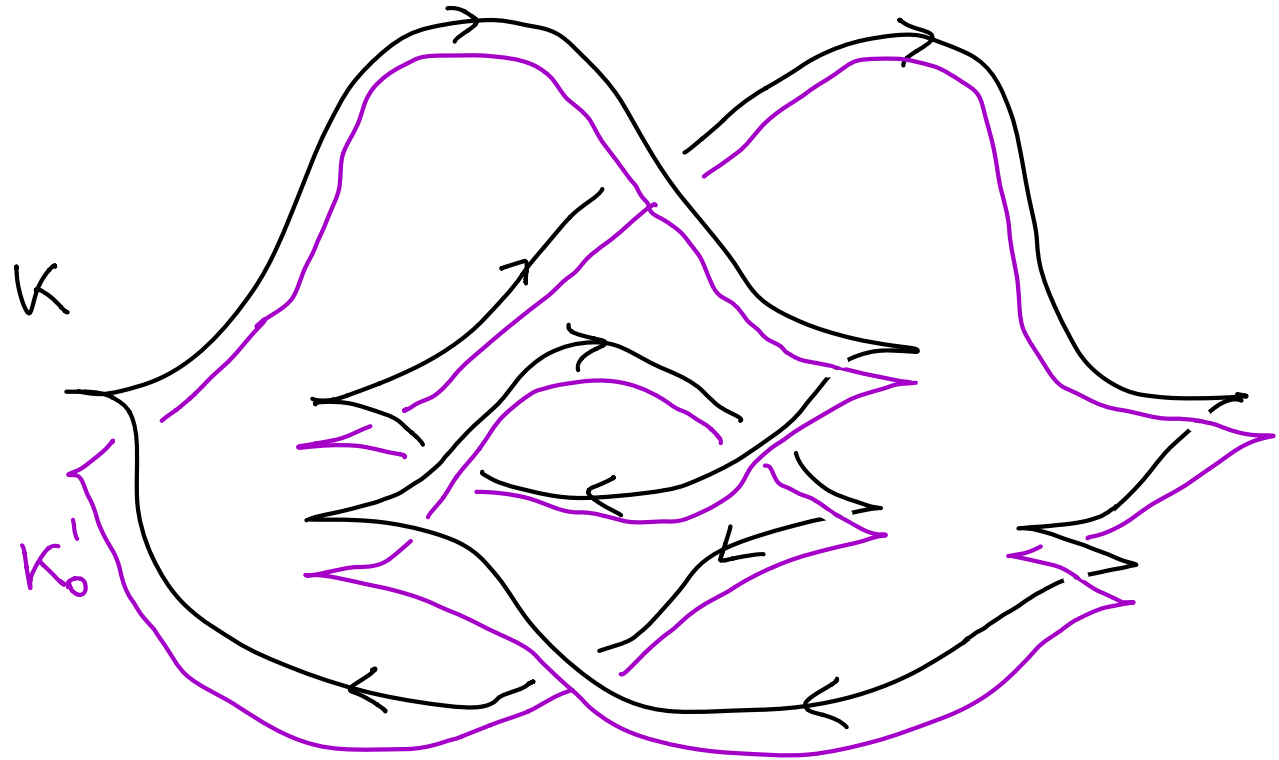
$TB(K) = 1 - 1 = 0$



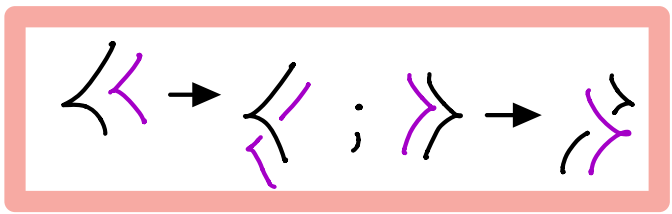
K' = blackboard framing.

$TB(K) = 0$

To get K' we add $w(K) = c(K)$ twists



$TB(K) = 0 = TB(K_0')$.



$TB(K) = 0 = TB(K_0')$.

Orient K_0' this way.

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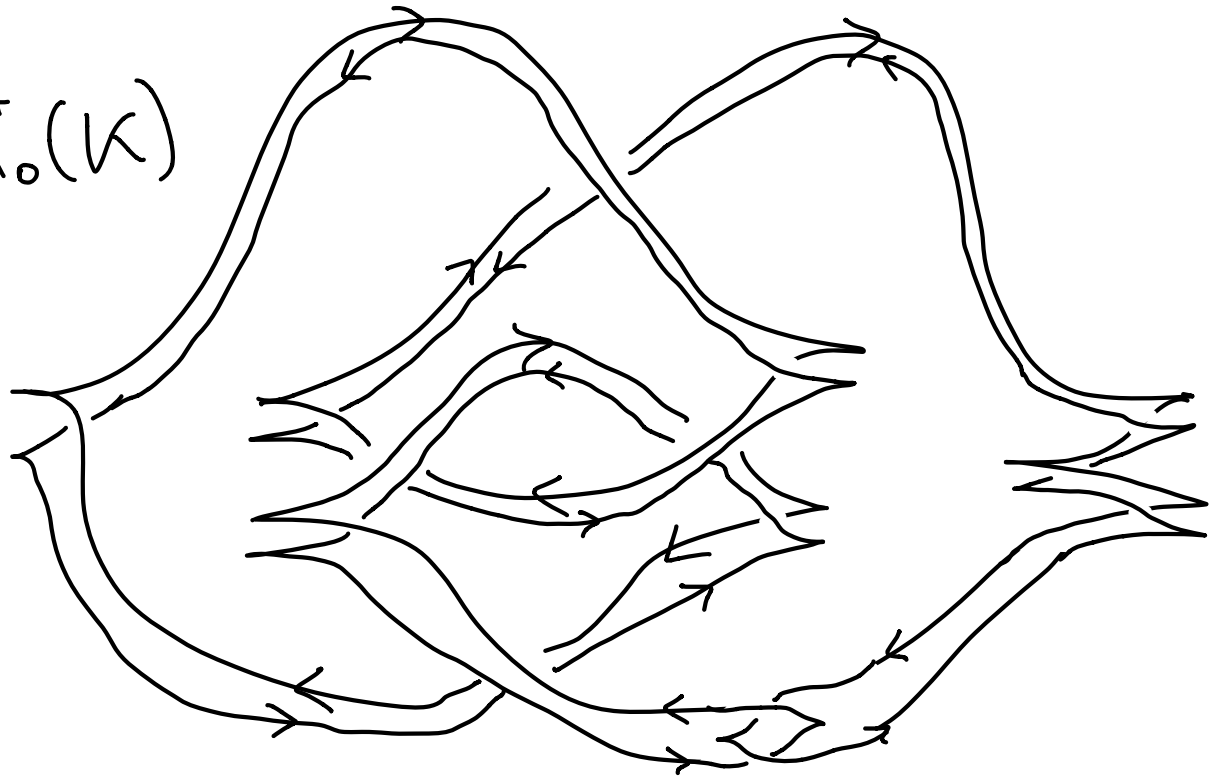
Orient K_0' this way.

$lk(K, K_0') = 0$

$Wh_0^+(K)$

$\parallel$

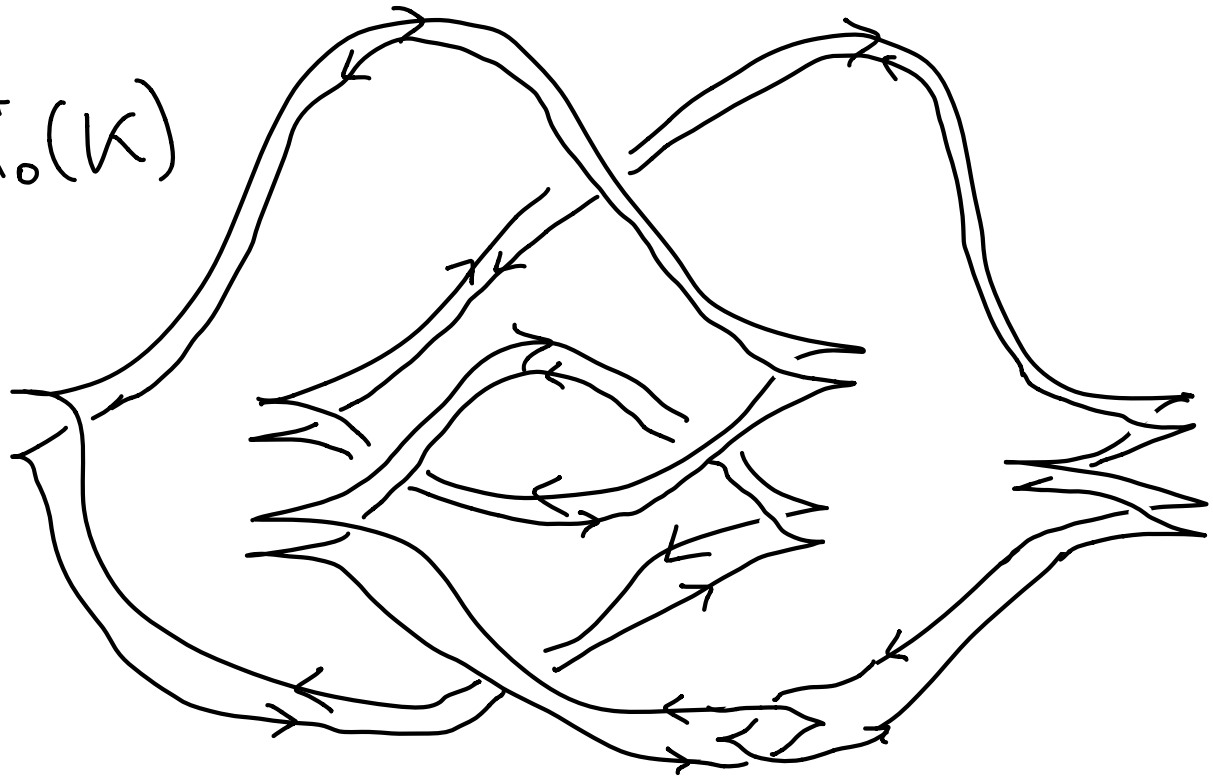
L



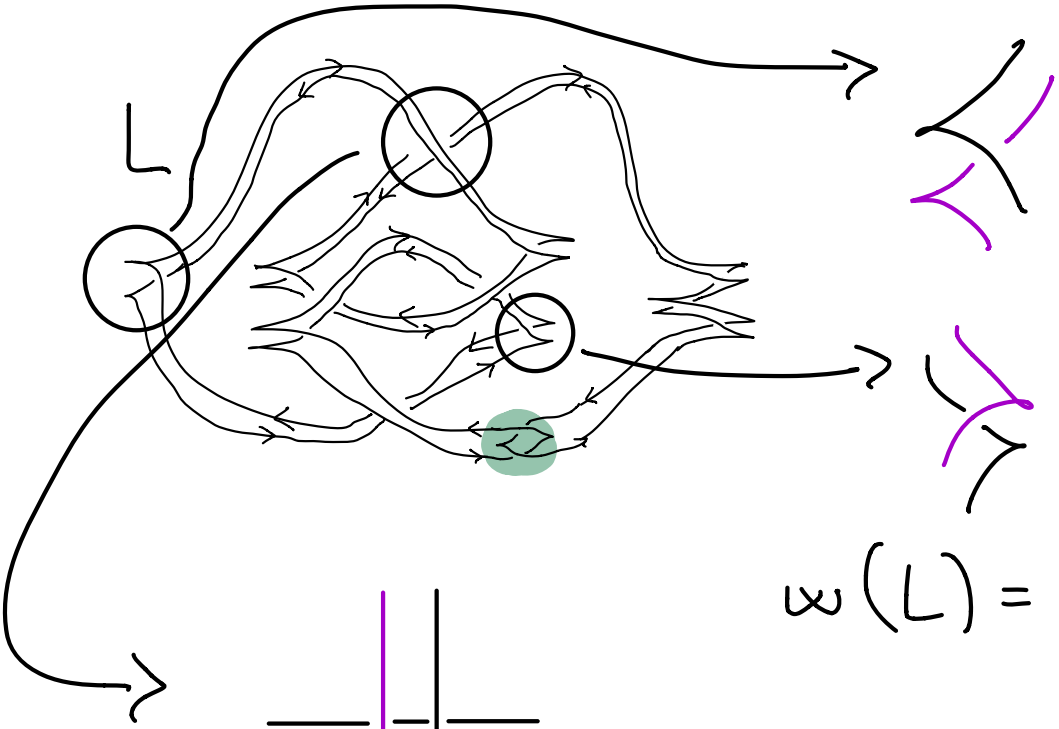
$Wh_0^+(K)$

$\parallel$

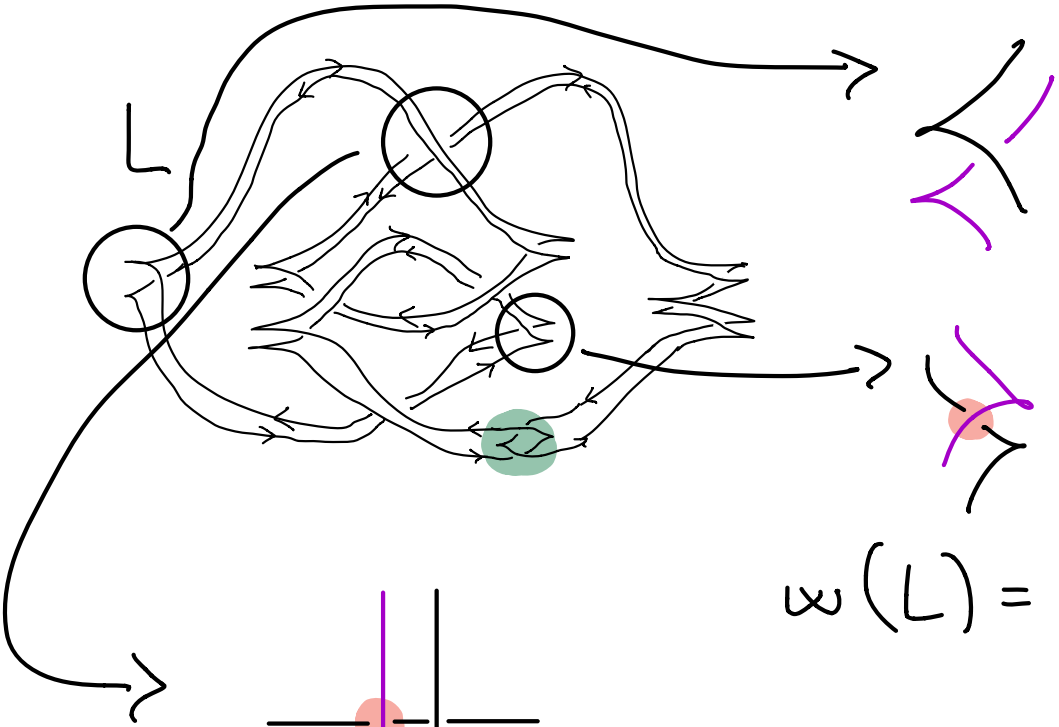
L



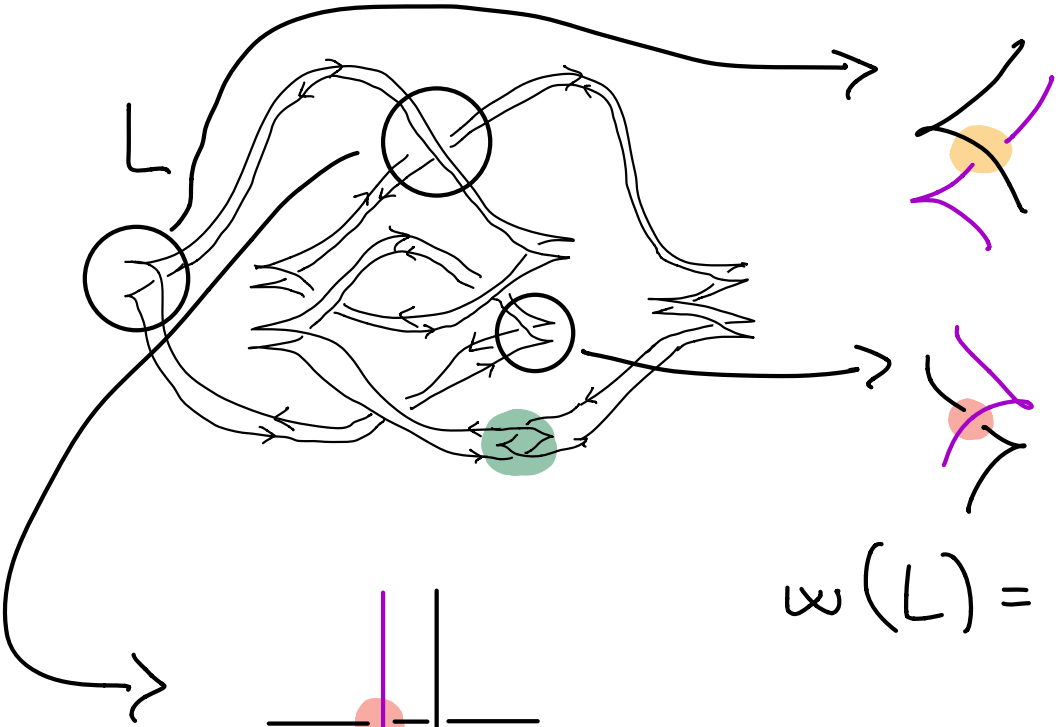
We want to find $TB(L)$.



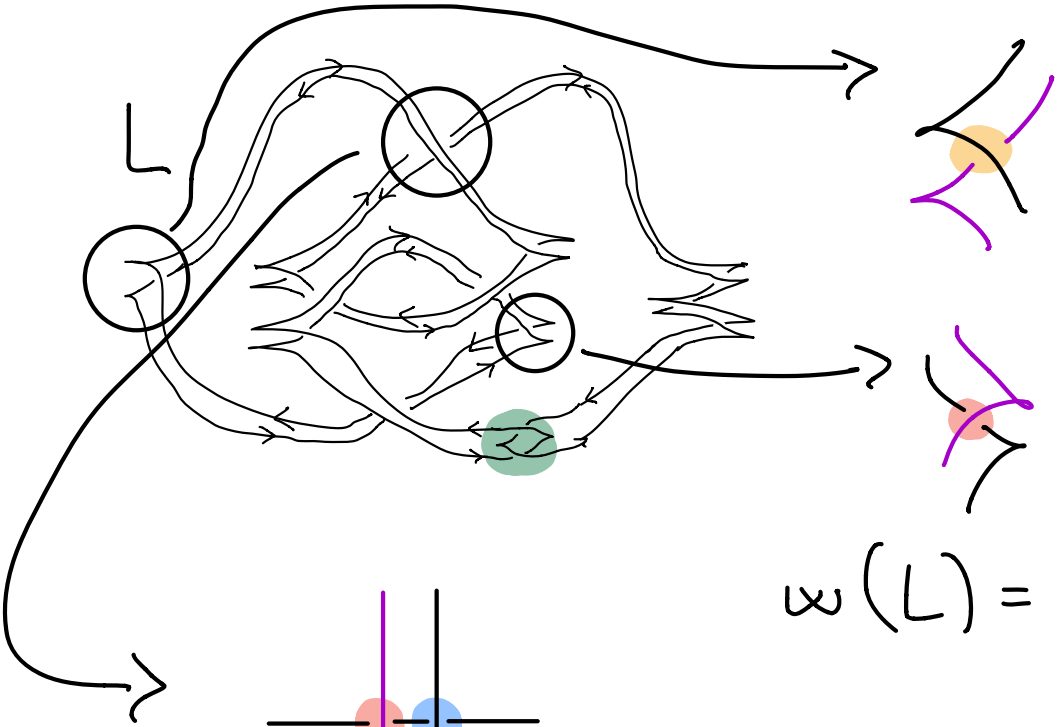
$w(L) =$



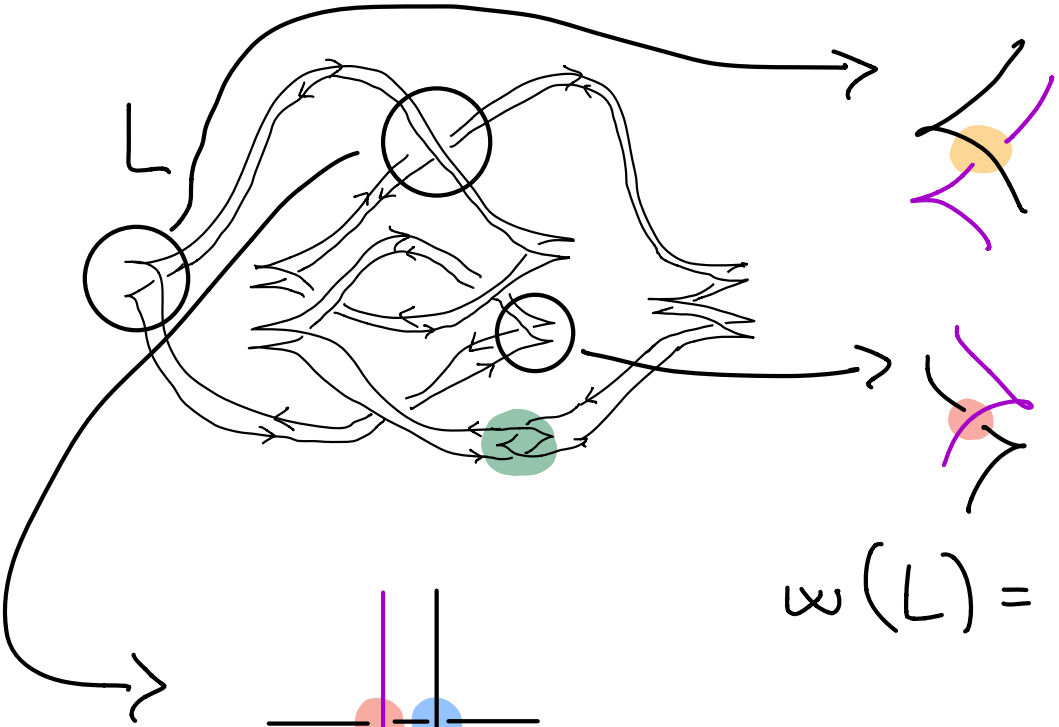
$w(L) = lk(K, K_0')$



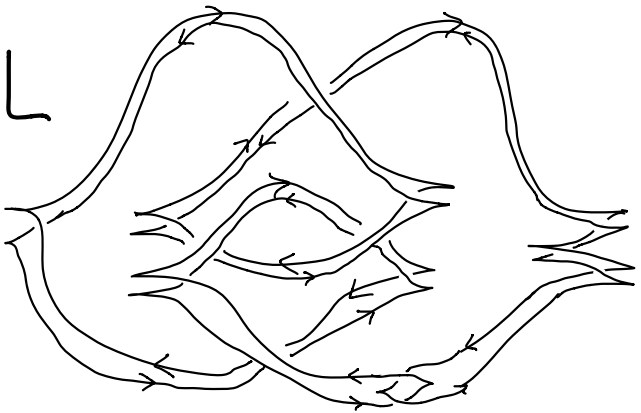
$$w(L) = lk(K, K_0') + lk(K, K_0')$$



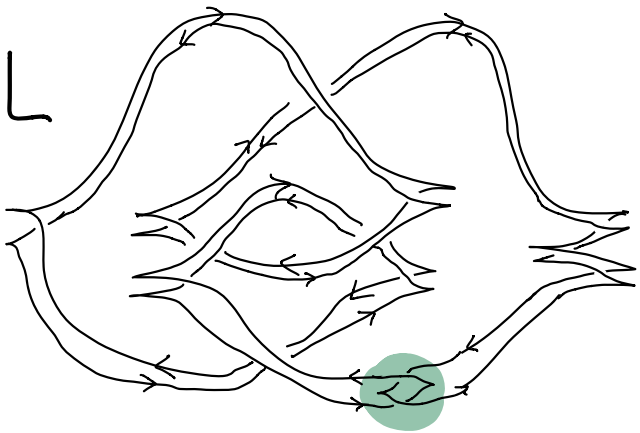
$$w(L) = lk(K, K_0') + lk(K, K_0') + w(K)$$



$$w(L) = lk(K, K_0') + lk(K, K_0') + w(K) + w(K_0')$$



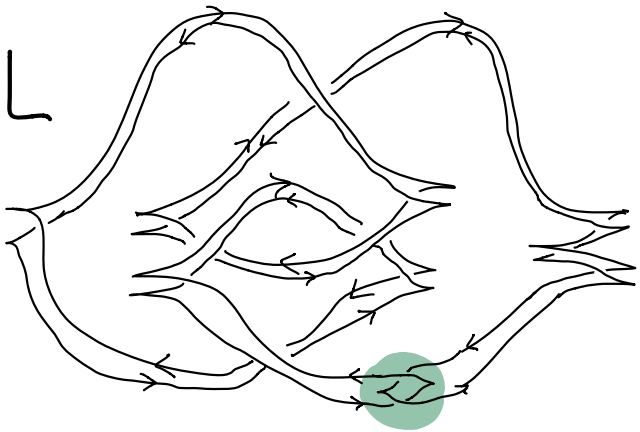
$$TB(L) = w(L) - c(L) =$$



$$TB(L) = w(L) - c(L) =$$

$$= w(K) + w(K_0') + 2 \cdot lk(K, K_0') - \left(c(K) + c(K_0') \right)$$

$+2 \quad -1$



$$TB(L) = w(L) - c(L) =$$

$$= w(K) + w(K_0') + 2 \cdot \underbrace{lk(K, K_0')}_{0} - \big(c(K) + c(K_0')\big)$$

$$+2 \quad -1 \quad =$$

$$= 1$$

$=0$ $\quad$ $=0$