Facts about twists

Convention

Positive horizontal twists

Negative vertical twists

Thus

Also notice

Thus we have the following isotopies:
\[ [A, B, C - 1, D + 1] \]
\[ C < 0, D > 0 \]

Rotate counter clockwise

Reposition
Given a rational tangle $T$
there exists a unique Conway sequence $[a_1, \ldots, a_n]$ s.t. $n$ is odd and
all $a_i$ have the same sign.

Let $[b_1, \ldots, b_m]$ be a Conway sequence with $m$ even (using notation
convention from Adams). 

\[
\begin{align*}
\begin{array}{c}
\text{if } b_i > 0 \\
\end{array}
\end{align*}
\]

and so $[b_1, \ldots, b_m] = [2, b_1-1, b_2, \ldots, b_m]$

To make all the signs use the trick from the previous page.
\[ \left[ -2, 4, 3, -1, 2, 5 \right] \]

\[
= 5 + \frac{1}{2 + \frac{1}{-1 + \frac{1}{3 + \frac{1}{4 + \frac{1}{2}}}}} = \frac{61}{9}
\]

\[
\left[ -2, 4, 3, -1, 2, 5 \right] \quad \uparrow \uparrow
\]

swing

rotate counter-clockwise
[2, -4, -2, 1, 5]

flip strand

rotate
It worked!!

\[ \frac{1}{6} \times \frac{1}{2} + \frac{1}{6} \times \frac{1}{3} + \frac{1}{6} \times \frac{1}{6} = \frac{1}{4} + \frac{1}{18} + \frac{1}{36} = \frac{11}{36} + \frac{2}{36} + \frac{1}{36} = \frac{14}{36} = \frac{7}{18} \]