
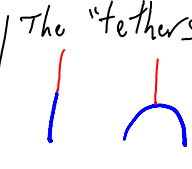


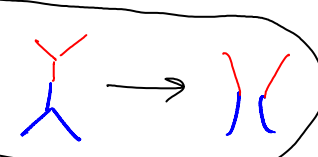
Can do with tubes and strings

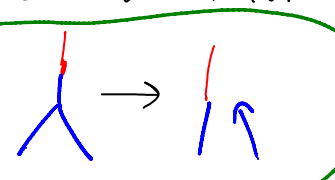
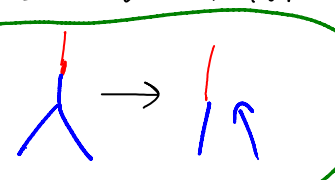
May-04-10
8:55 AM

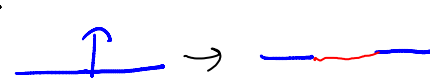
Allowed moves: 1.  (an isomorphism).

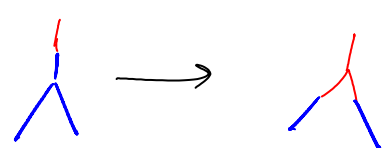

2. All crossings:  $\times = \times$.

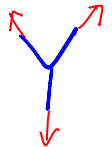


3. vertices:  The "tethers": 

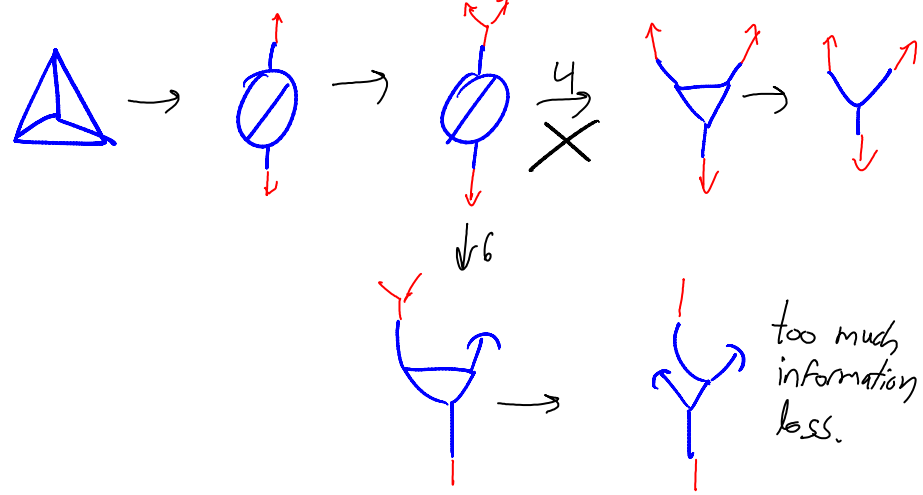
2.4.  likely fails

5. strand delete.  2.6.  tethered disk unzip

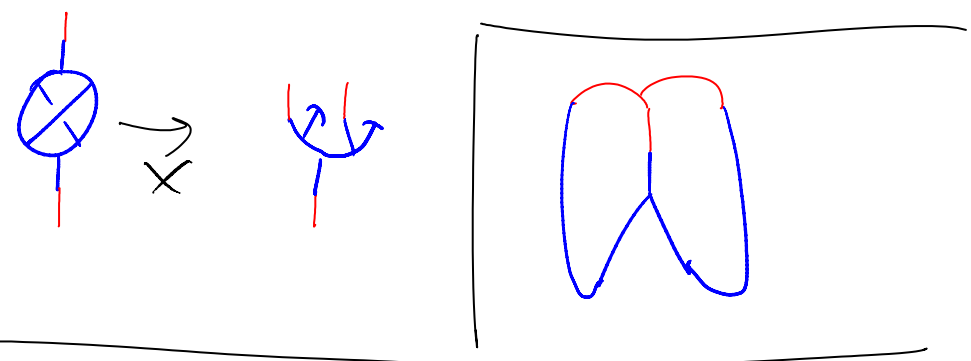
2.7. 

X8.  likely forbidden. The price  is too high, and if allowed, 4 would be too.

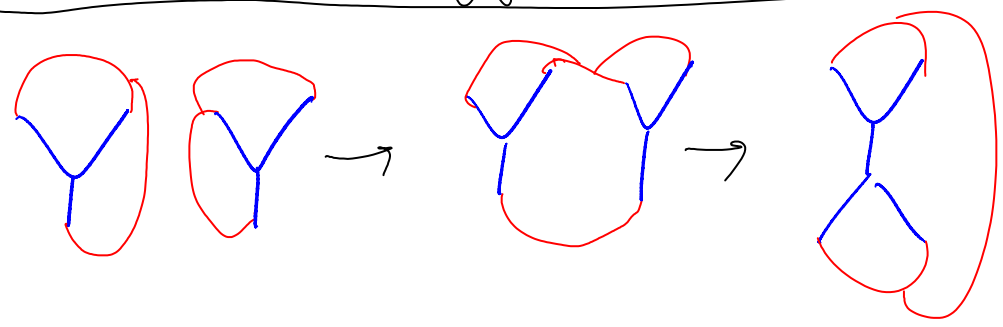
Goal come to  From a tube-only shape. Presumably  will fail, but  will do.

Attempt 1  too much information loss.

Attempt 2

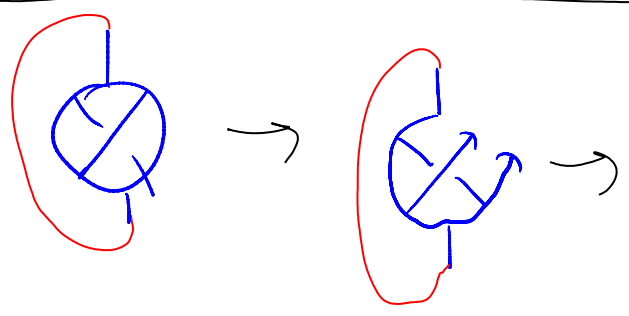


Question If an operation is doable, in what space lives its price tag?

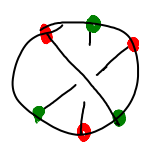


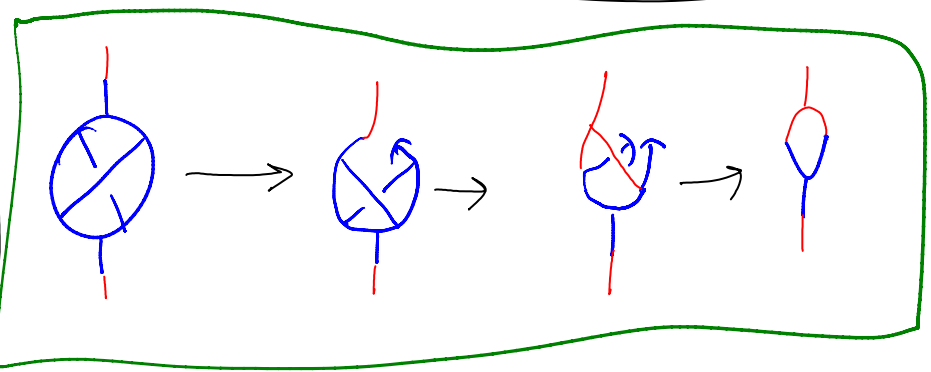
Question: What's $A(\downarrow)$ (less than $A(Y)$, for sure)

Attempt 3

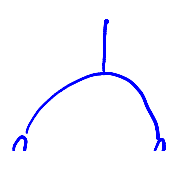


Attempt 4

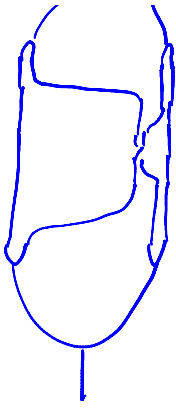
Aside:

 is a $K_{3,3}$



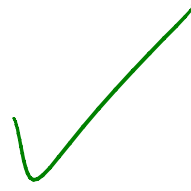
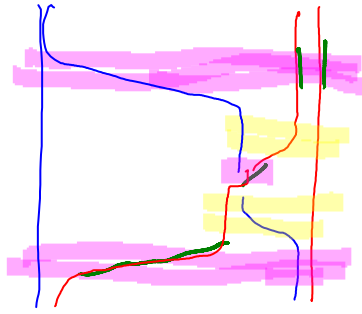
Does this give the right output?



compare with



with



Why not  ?

Why not  ?

