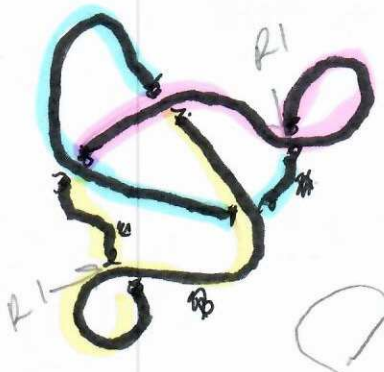
1. (8 pts) Identify these knots or links (and explain your reasoning!):

a.



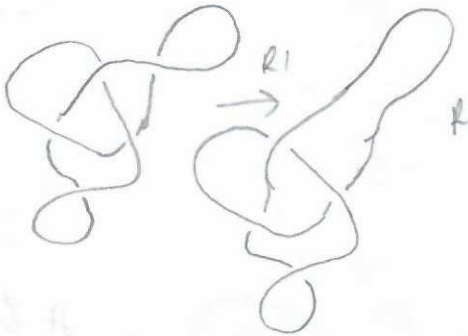
~~Knot Because it is not tricolorable~~

10 crossings

~~a t_2~~

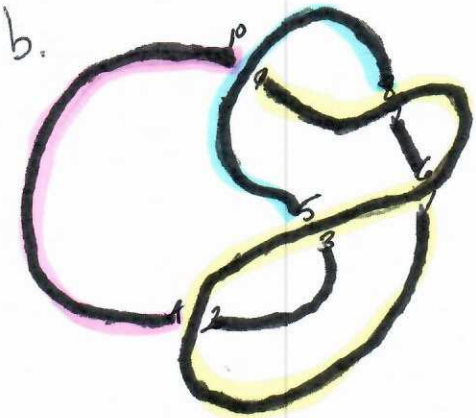
A Trefoil Knot which is Tricolorable

Good!



✓

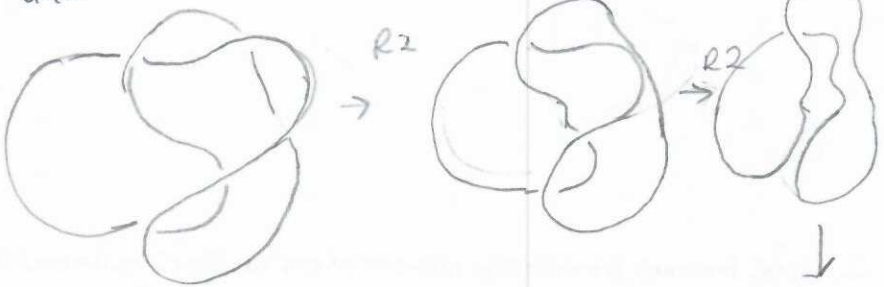
b.



Not tricolorable

10 crossings

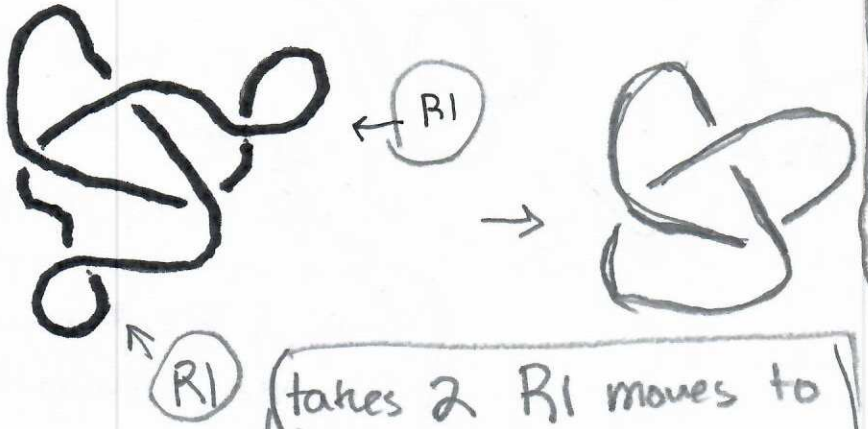
unKnot



Nice

1. (8 pts) Identify these knots or links (and explain your reasoning!):

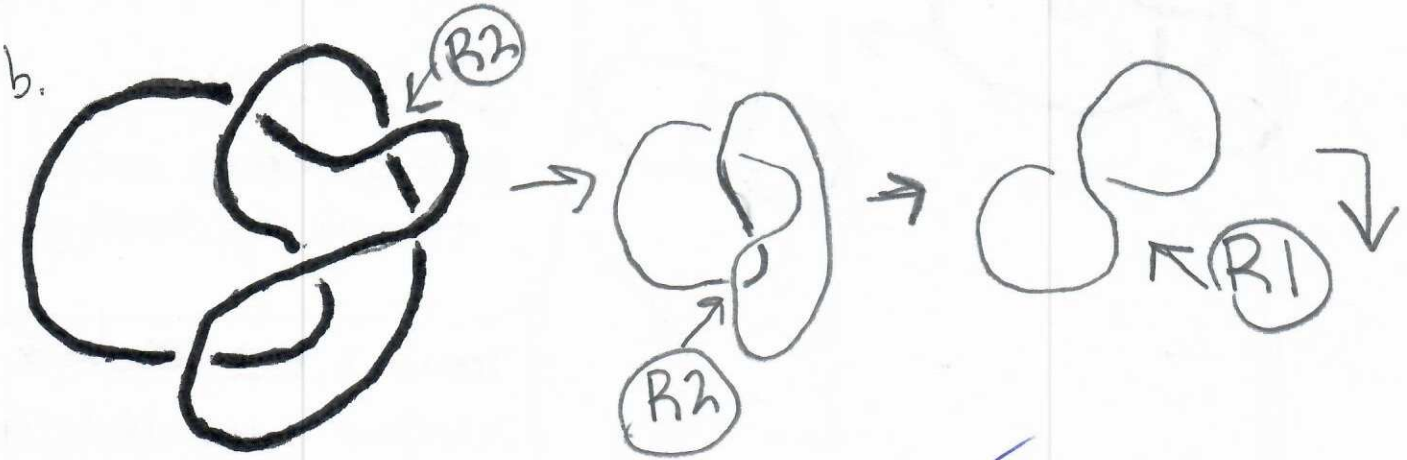
a.



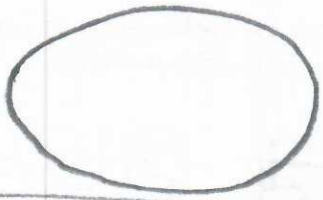
This is 3_1 Trefoil knot (3 fish hooks over + under succinctly) :)

takes 2 R1 moves to "Undue" into trefoil ✓

b.



✓

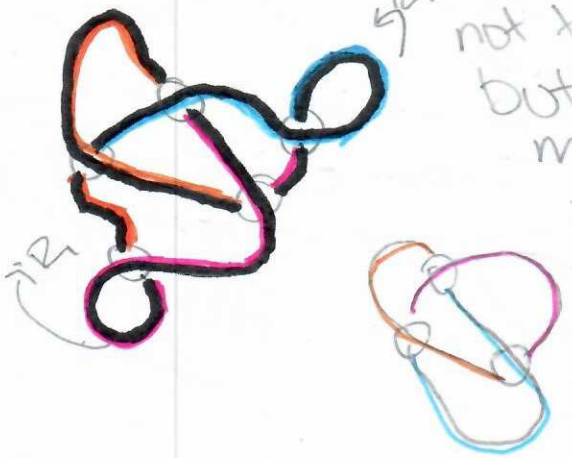


required 2 R2 + 1 R1 move to "Undue" into an unknot

This is an unknot (torrus knot)

1. (8 pts) Identify these knots or links (and explain your reasoning!):

a.

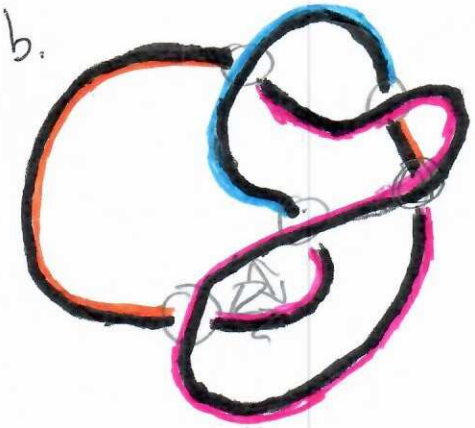


not tricolorable but after 2 R1 moves it was tricolorable & only had 3 crossings.

= trefoil

✓

b.



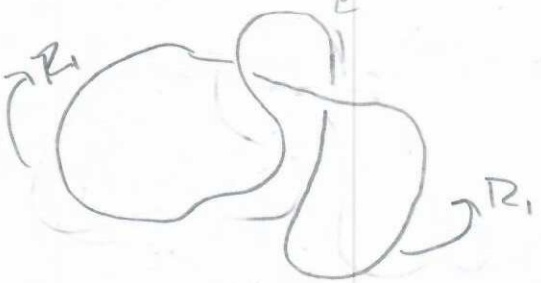
not tricolorable.

≤ crossings, & used ~~4~~ R moves

= unknot

✓

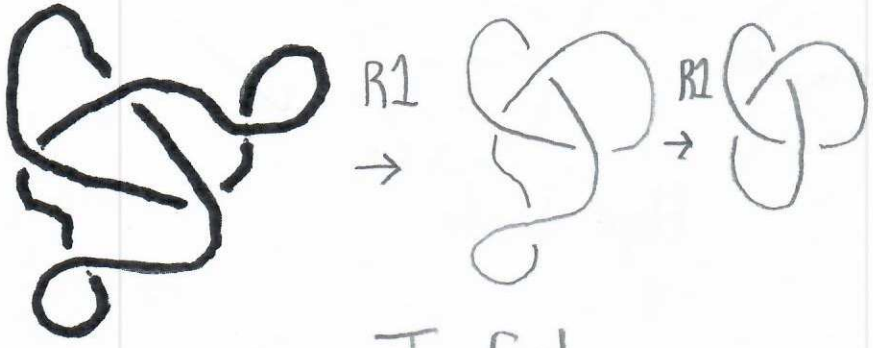
After R2,



Nice work

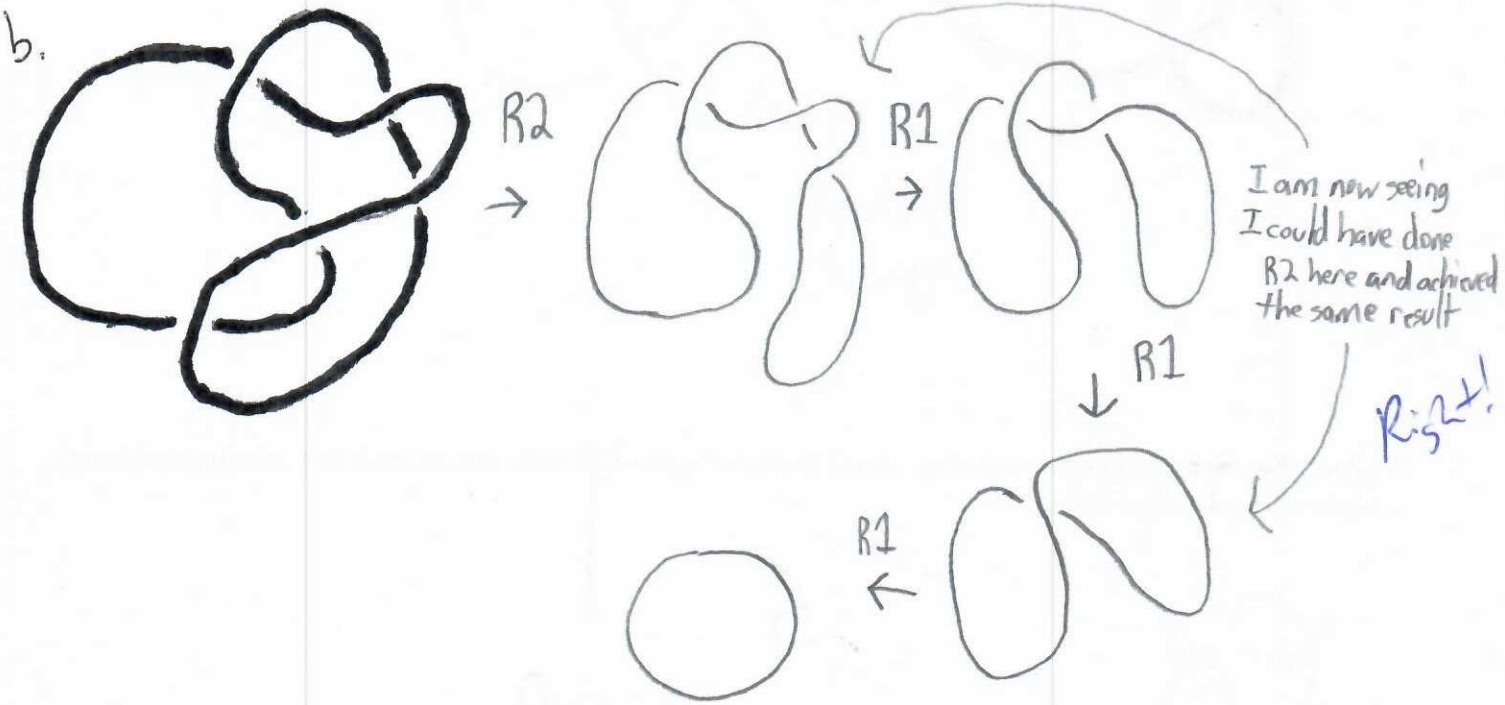
1. (8 pts) Identify these knots or links (and explain your reasoning!):

a.



Trefoil

b.



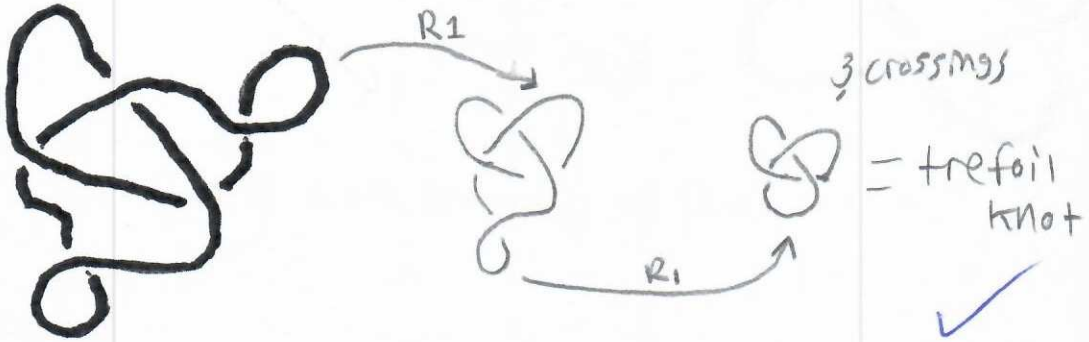
Right!

Unknot

Nice work!

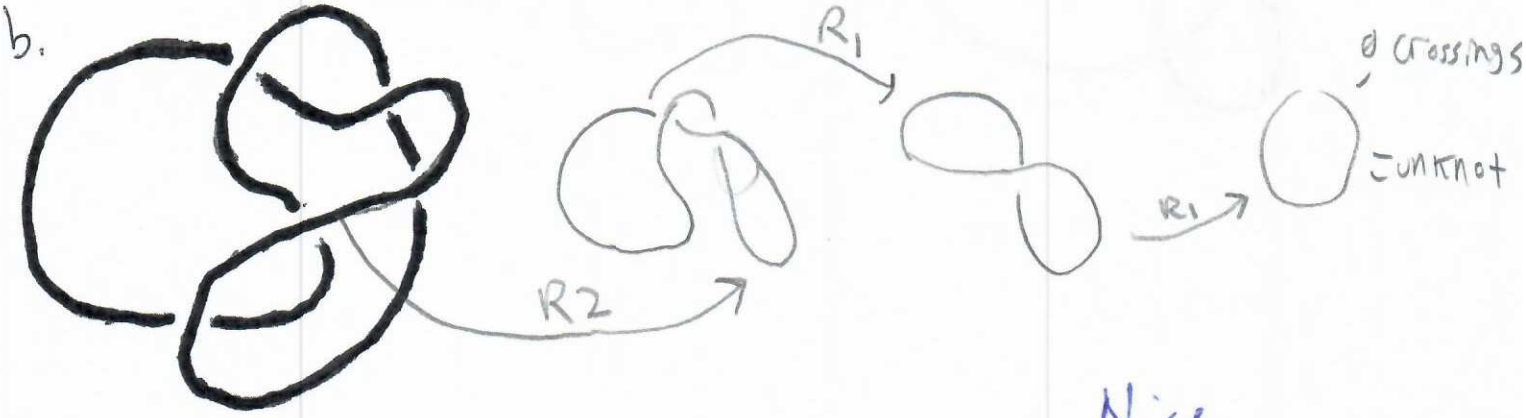
1. (8 pts) Identify these knots or links (and explain your reasoning!):

a.



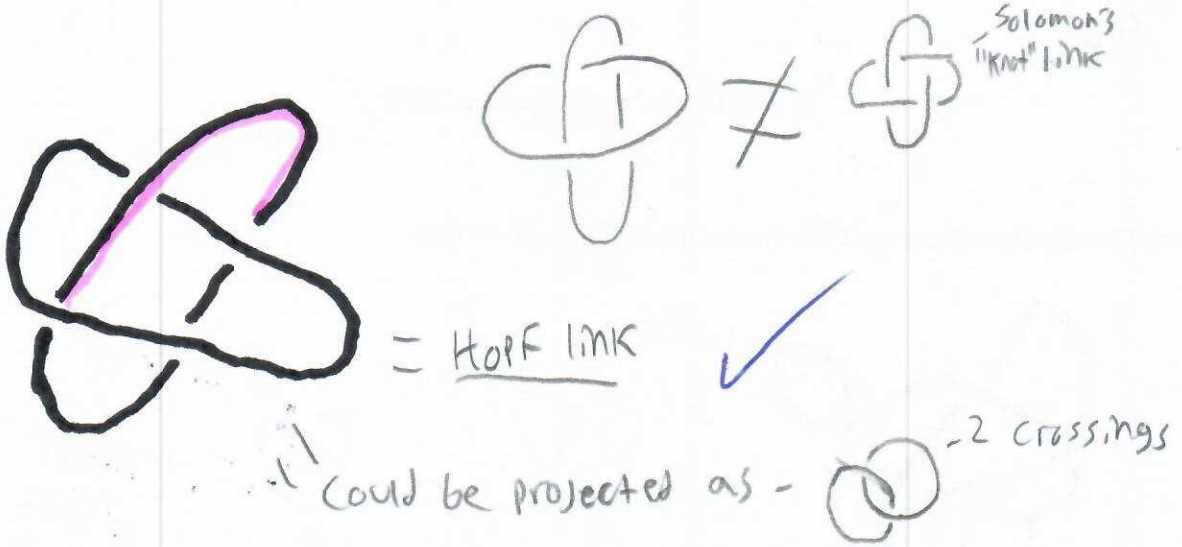
✓

b.



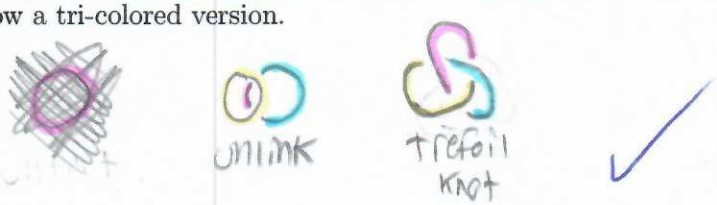
Nice.

c.



d.

2. (2pts) For each tri-colorable member of our family of knots and links (those with five crossings or fewer), show a tri-colored version.

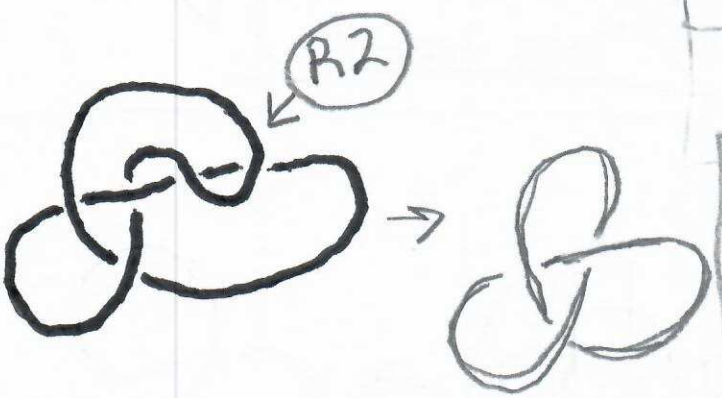


c.

This is a Hopf link
(2 rings linked together)

took 1 R2 move to "undue" into Hopf link

d.



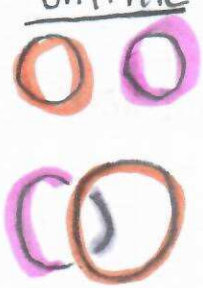
This is also a 3_1 Trefoil knot
(3 fish hooks over + under succinctly)

took 1 R2 move to "undue" into trefoil

2. (2pts) For each tri-colorable member of our family of knots and links (those with five crossings or fewer), show a tri-colored version.

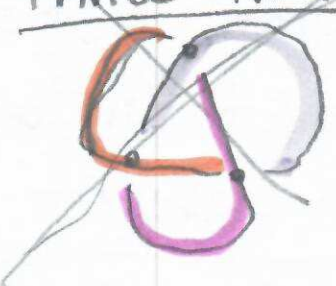
Ooh!

(1) unlink

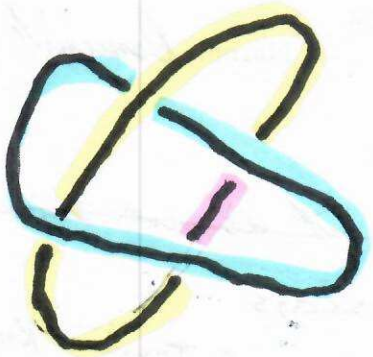


(2) trefoil knot (both right + left-handed versions)

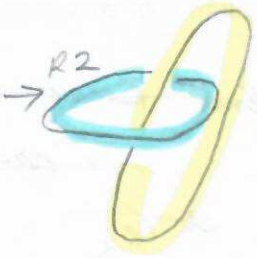
Thrice-twisted knot



c.

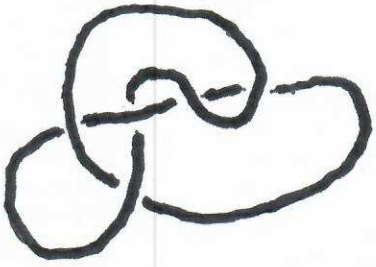


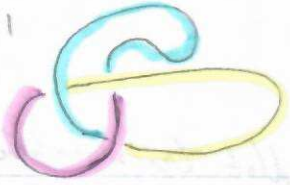
A link - Hopflink
Not tricolorable ✓



= a hopflink

d.





A trefoil knot
Tricolorability ✓

2. (2pts) For each tri-colorable member of our family of knots and links (those with five crossings or fewer), show a tri-colored version.

Beautiful trefoils - Now draw the unlink!