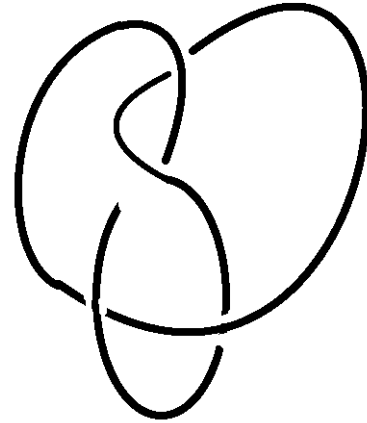
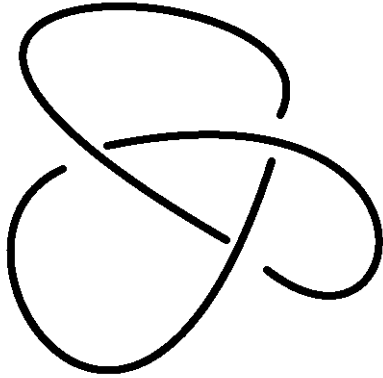


Connect Sums

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.



1. Identify which of the above knots is a trefoil and which is a figure eight.
2. Find the connect sum of the trefoil with the figure eight.
3. Form the connect sum of the trefoil with the figure eight but choose different cut locations than you did before.
4. Is the connect sum of two knots well defined? That is, if we make different *choices* about where to cut each knot and connect the ends, do we get the same or different composite knot? Justify your answer and be prepared to defend it!

5. Recall the parallels between connect sums and multiplication of integer and prime knots and prime integers. The number 1 plays an unusual role with respect to multiplication, is there a knot that plays a similarly unusual role with respect to connect sums? If so, find it and explain why it is unusual.