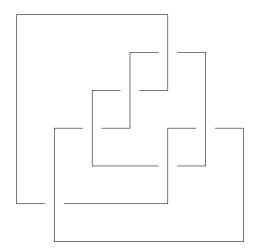
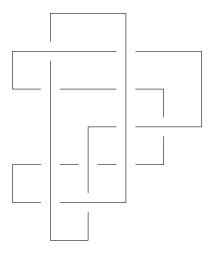
Revision Question 8 — 07/05/14

The knot 6_2 is pictured below.



- a) Using the skein relations or otherwise, calculate the Jones polynomial of 6_2 . [10 marks]
- b) Is 6_2 isotopic to its mirror image? Justify your answer. You may quote without proof any results from the course. [3 marks]
- c) Explain how to construct the Seifert surface associated to 6_2 . What is its genus? [5 marks]

Let K be the knot depicted below.



- d) Calculate the writhe w(K) of K? [3 marks]
- e) Find a knot which is isotopic to K, but whose writhe is w(K) + 3. [3 marks]
- f) Using the Reidemeister moves, demonstrate that K is isotopic to \mathfrak{Z}_1 , the trefoil, depicted below. For fewer marks, you may give a demonstration that does not use only the Reidemeister moves. [6 marks]

