

# **MA3K7 PROBLEM SOLVING WITH PYTHON 2025/26**

## **ASSIGNMENT 2**

INSTRUCTIONS (same as before)

Write a rubric for the following problem. Remember to incorporate the material discussed in class.

Resist the urge to google the answer, because we are not interested in the answer per se. We want to see how you apply the problem-solving techniques discussed in class so far to this problem.

You must type your final work up in LaTeX, using the provided template, then upload the PDF of your rubric. Code must be available, either as a file or via a link (e.g., GitHub).

### **PROBLEM: MATRIX GAME**

You and a friend are playing a game in which you both take turns to write numbers into an  $n \times n$  grid. You can only use the number 0 and your friend can only use the number 1 in each turn. The game continues until all cells are filled. If the final result is a matrix with zero determinant, you win. Investigate.