

1. If you leave any part of this question blank, your assignment will not be marked and its weight will be transferred to the final exam. Print the name and ID number of each group member (at most 4) for this assignment:

Acknowledge **all** sources, including all references and all people not in your group with whom you discussed any part of any question (for each discussion, list the relevant questions) (continue on the back of this page if there is insufficient space):

Each group member must read, agree to, and sign this statement:

I am familiar with the Code of Student Behaviour. I understand that there are significant penalties for any infraction of this Code.

2. Implement a program to solve or play a puzzle or game. Choose any puzzle or game that interests you. Your implementation should reflect ideas that you have learned this semester.

If you choose a game or puzzle that has been covered in the course, then your algorithms should differ from those of the course code repository.

You will have 5 minutes to demo your program to a TA or the prof. In addition, answer the following questions. You will be graded on the strength, correctness, creativity, and difficulty of your implementation, as evident from the demo and the following answers.

(g) Give evidence that your algorithm is efficient, ie. its runtime is reasonable.

(h) Give examples that show that your algorithm performs well.

(i) What ideas in your work are original to you?

(j) What ideas in your work are from others? **Give sources for any algorithms or code that you use that is not your own.**

(k) If you had 4 weeks fulltime to work further on your implementation, what would you work on next? Why?