

AIML2026 ASSIGNMENT 01

(Due Date: March 04, 2026)

Instructions: You need to answer all questions in this assignment and your answers must be in English. Moreover, the following points should be noted.

- If you use a word processing software to edit your answer, please make sure that the answer file is either in WORD or PDF format.
- You need to submit the answer file before the due date to the Gmail account `johnsum.nchu@gmail.com`.
- Email heading must be conformed to `AIML2026_Assignment01_studentID`.
- Filename must be conformed to `AIML2026_Assignment01_studentID`.
- It is a bonus assignment. If you are too busy to complete the assignment, you can just skip it and then send me an email via the same Gmail account informing me that you are unable to submit the answer file.
- You answer file must be submitted before time 00:00 of the due date.

The assessment of this course is solely depended on your work in the course project including your written report and your oral presentation. The scores obtained from the assignments are bonus to be added to your project score.

Question 1

- Show that $1 + 2 + \dots + n = n(n + 1)/2$.
- What is the value of $1 + 2 + 3 + \dots + 100$? State your steps in detail and the equation you have applied.
- What is the value of $2 + 4 + \dots + 200$? State your steps in detail and the equation you have applied.

- What is the value of $1 + 3 + \dots + 199$? State your steps in detail and the equation you have applied.

Question 2

- State *all* functions which are provided by a large language model (LLM), like OpenAI ChatGPT and Google Gemini.
- As mentioned in the class, LLM might give incorrect information in response to a prompt. Describe in detail how you validate the correctness of the information generated by a LLM.
- State the names of three LLMs which are available for use with no charge. OpenAI ChatGPT and Google Gemini are excluded.

Question 3

- Are you intelligent? If yes, why? If no, why?
- Describe in your own words, how do you measure (equivalently, justify) one's intelligence is more than the other. (Any reasonable answer is acceptable.)
- Describe in your own words, how do you make yourself more intelligence.
- What should be a proper definition for *Artificial General Intelligence* (AGI)?
- What is(are) the difference(s) between *Artificial Intelligence* (AI) and *Artificial General Intelligence* (AGI)?