

Collaboration Rules

Each student is expected to complete his or her own assignment. It is okay to work with other students and to ask questions in order to get ideas on how to solve the problems or how to overcome some obstacle (be it a question of MIPS or assembler syntax, interpreting error messages, how a part of the problem might be solved, etc.) It is also acceptable to seek out assembly language resources for help on MIPS, etc. It is okay to make use of AI LLM tools such as ChatGPT and Copilot to generate sample code. (Do not assume LLM output is correct. Treat LLM output the same way one might treat legal advice given by a lawyer character in a movie: it may sound impressive, but it can range from sage advice to utter nonsense.)

After availing oneself to these resources **each student is expected to be able to complete the assignment alone.** Test questions will be based on homework questions and **the assumed time needed to complete the question will be for a student who had solved the homework assignment on which it was based.**

Student Expectations

Some of the problems require thought, and students are expected to persevere until they find a solution. It is the students' responsibility to resolve frustrations and roadblocks quickly, and hopefully with the satisfaction of making progress. There are plenty of old problems and solutions to look at. One way to resolve issues is to ask Dr. Koppelman or others for help.

For the 2023 Final Exam, and other exams and solutions visit
<https://www.ece.lsu.edu/ee4720/prev.html>.

Problem 1: Solve the parts of 2023 Final exam Problem 1 requested below.

(a) Solve 2023 Final Exam Problem 1a, in which the execution (pipeline execution diagram) is to be shown for an unpipelined MIPS implementation and a code fragment.

(b) Solve 2023 Final Exam Problem 1b, in which a bypassed MIPS implementation is to be trimmed for the given execution. (Do not solve Problem 1c.)

Problem 2: Solve 2023 Final Exam Problem 2 which asks about A New Risk ISA.