

**Instructions:** This exam is closed book. You may refer to completed programs that you wrote for this class, but not to any other references. When you have finished your programs, submit your source code in Canvas. If you need help spotting a typo, raise your hand. I will point out simple typing errors. If your error is partly conceptual I may not be able to help. If you are getting a runtime error (your program runs, but the output is incorrect) you're on your own.

**College Honor Code:** The College of Idaho is a community of integrity; therefore, we, the students, seek to promulgate a community in which integrity is valued, expected, and practiced. We are honor bound to refrain from cheating, stealing, or lying about College-related business. We are obligated to examine our own actions in light of their effect on the community, and we are responsible to address any violations of these community standards.

*By signing here and completing the exam, I pledge that  
this work was completed with academic integrity.*

(sign here) \_\_\_\_\_

1. Write a program `midterm1.cpp` that:
  - (a) Asks the user to ...
  - (b) If the first input is ... or ..., outputs ...:
  - (c) If both inputs ..., prints a display ...
  - (d) If the first input ..., prints a display ...
  - (e) You may use functions to implement these tasks, but you don't have to.
2. Write a program `midterm2.cpp` that:
  - (a) Asks the user to ...
  - (b) Asks the user to ...
  - (c) Calls a function that ... This function computes ...
  - (d) Displays the value returned by ...
3. Write a program `midterm3.cpp` that:
  - (a) Defines an array containing ...
  - (b) Defines an array containing ...
  - (c) Prompt the user to enter ...
  - (d) Use *indexing* of the arrays you created in parts (a) and (b) above to ...