**Name: Cameron Peterson-Zopf Student ID: 57999719**

# Programming Assignment 1

Discussion on a high level with your colleagues is encouraged. Make sure the work submitted is your own. When in doubt, ask a TA or the instructor. If you are not sure what constitutes academic dishonesty, please refer to the AISC web site: <https://aisc.uci.edu/>.

You can fill out your answers below in text, paste screenshots, and/or include images (make sure the image is right side up & legible).

This homework covers:

* LC-3 Machine Code Tutorial

## AISC

Please initial here to indicate you understand UCI’s Academic Integrity Policy and confirm that this is your own work you are submitting (this counts for points): CPZ

## Ideal Program

Here is the code:

A screenshot of a computer

AI-generated content may be incorrect.

Here are the results:

A screenshot of a video game

AI-generated content may be incorrect.

## Debug Program

Here is the initial screen:

A screenshot of a computer

AI-generated content may be incorrect.

Simulator View of Error:

A screenshot of a computer

AI-generated content may be incorrect.

The error is that the branch statement will go back to x3201 if positive and zero. We only want to branch back at positive values. If the counter is zero, we should halt. That is why an extra 5 is being added.

The fixed code is:

A screenshot of a computer program

AI-generated content may be incorrect.

The simulator result is:

A screenshot of a computer

AI-generated content may be incorrect.