

# Northern Michigan University (Marquette Co, MI) CS 522-01-25W: Principles Of Programming Languages

## Assignment 2

Due: Monday 17 February 2025 11:00 A.M. EST

Create a directory called “HW2” at the top level of your CS522-01-25W folder on PHILOS. You should solve this problem in either a text file (.txt) or an MS Word file (.docx). Place this file inside your HW2 folder along with an empty file or folder named DONE .

From the textbook do

Exercises 1-2, p. 42

Exercises 1-3, p. 66

Prove that the language of base 10 perfect squares  $\{0,1,4,9,16,25,\dots\}$  is not regular.

Find a regular expression that generates all binary numbers divisible by 5 (101).