

Cpr E 381 Homework 3

P1. Using the SPIM simulator write MIPS assembly programs to solve the following problems. Include the calls to print results to the console as done in the sample program from Homework 2.

1. Write a program that sums the values of the odd numbers between 0 and 100.
2. Write a program that prints all of the values between 1 and 100 that are evenly divisible by 7 (do not use divide).
3. Write a program that can copy a string from one variable (memory location) to another. Use the data type “.asciiz”. Have the program work with any length of string (hint - the type “.asciiz” means the string is null terminated). Print the contents of both variables (memory locations) before and after the program to show the copy has been made.
4. Write a program that will take two positive integer numbers from the user and multiply them together using add instructions. Is there a simple change that can be made to optimize the program if either of the two numbers is the smaller of the two?

P2. Problem 2.29 in the book

P3. Problem 2.30 in the book.