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COSC 300-001

Dr. Ezekiel

Decrement by Dividing Floats

**Code:**

# Author: Drew Daniel

# COSC 300-001

# Rabbit population growth

.data

prompt: .asciiz "Rabbits take one month to reach maturity, and one month to reproduce. At the end of one year, how many rabbits will there be?"

answer: .asciiz "\n\nNumber of Pairs of Rabbits: "

bye: .asciiz "\n\nHave a nice day!"

.text

.globl main

main:

# $t0 will hold starting population

# $t1 will hold month-2 population

# $t2 will hold month counter

# $t3 will hold month limit

la $a0, prompt

li $v0, 4

syscall

# Load initial values

li $t0, 1

li $t1, 2

li $t2, 2

li $t3, 12

Loop:

addi $t2, $t2, 1

jal Fib

bne $t2, $t3, Loop

la $a0, answer

li $v0, 4

syscall

move $a0, $t1

li $v0, 1

syscall

la $a0, bye

li $v0, 4

syscall

li $v0, 10

syscall

Fib:

move $s0, $t0

move $s1, $t1

add $s2, $s0, $s1

move $t0, $s1

move $t1, $s2

jr $ra

**Console:**

