

Nikola Peevski
Homework 09
CS536

Question 1.

.text

.globl main

func:

#Prologue

sw \$ra, 0(\$sp) #Push

subu \$sp, \$sp, 4

sw \$fp, 0(\$sp) #Push

subu \$sp, \$sp, 4

addu \$fp, \$sp, 8

lw \$t0 4(\$sp)

addu \$sp, \$sp, 4

lw \$t1 4(\$sp)

addu \$sp, \$sp, 4

#Function body

WhileStmt

.L0:

WhileCondition

b > a

bgt \$t1, \$t0, .L2

j .L1

.L2:

##Assign

addu \$t0, \$t0, \$t1

j .L0

.L1: #Loop Successor

#Return

j _func_Exit

_func_Exit:

#Epilogue

lw \$ra, 0(\$fp)

move \$t0, \$fp #save control link

lw \$fp, -4(\$fp) #restore FP

jr \$ra

Question2.

The code could be something along the lines of

```
int c;  
if ( (a-b) < (a + b) ) {  
    C = a / b  
} else {  
    C = b / a  
}
```