Ov assign 3

# Task 1

* a = b = int list

# Task 2

* a)

t\_1 := v + w

t\_2 := w + 1

LABEL \_GCD\_

IF t\_1 = 0 THEN

t\_0 := t\_2 \* 2

ELSE

t\_1 := t\_2

t\_2 := t\_1 mod t\_2

GOTO \_GCD\_

* b)

IL

t\_1 := v

t\_2 := w

LABEL loop

IF t\_2 == 0 THEN

GOTO exit

IF t\_1 / t\_2 != 0 THEN

IF t\_1 < t\_2 THEN

t\_1 := t\_1 - t\_2

ELSE

t\_2 := t\_2 - t\_1

GOTO loop

LABEL exit

ASM

main:

j cond

lf:

subi $s1, $s2

j cond

loop:

slt $t1, $s2, $s1

bneq $t1, $zero, lf

subi $s2, $s1

cond:

beq $s2, $zero, exit

div $t1, $s1, $s2

bneq $t1, $zero, loop

exit:

* c)

seq $s0 $s2, $s3

xori $s1 $zero, $s4

Task 4

* a)

char \*y = (char\*)malloc(n);

int l, i = 0;

while (i++ < n) {

if (f(\*x++)) {

++\*y = \*x

l++;

}

}

y[0] = l

* b)

Se filter.asm (Det er compiled code, så nok lidt ulæseligt)

* c)

Resultatet bliver et int array og inputs skal være et int array.