

ARM Min/Max Lab 9  
;Min Max ARM

```
.code
    ldr r0, =prompt01
    ldr r0, =nip
    swi 5
    swi 2
    mov r5, r0
    ldr r0, =nip2
    swi 5
    swi 2
    mov r6, r0
    ldr r0, =nip3
    swi 5
    swi 2
    mov r7, r0
    bl loadRegs
    bl sortNums
    bl printNums
    swi 6
loadRegs:
    mov r0, r5
    mov r1, r6
    mov r2, r7
    bx lr

sortNums:
    cmp r0, r1
    blt swap1
    bge step2
swap1:
    push {lr+r0}
    mov r0, r1
step2:
    cmp r0, r2
    blt swap2
    bge step3
swap2:
    push {lr+r0}
    mov r0, r2
step3:
    cmp r1, r2
    blt swap3
    bge endLabel
swap3:
    push {lr+r1}
    mov r1, r2
endLabel:
    bx lr
printNums:
    swi 1
    mov r1, r0
    swi 1
```

```
mov r2, r0
swi 1
bx lr
```

```
.data
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```
prompt1: .ascii "Welcome to the program. Whoop whoop!!"
nip: .ascii "Enter the number of your choosing (1) "
nip2: .ascii "Enter the number of your choosing (2) "
nip3: .ascii "Enter the number of your choosing (3) "
```