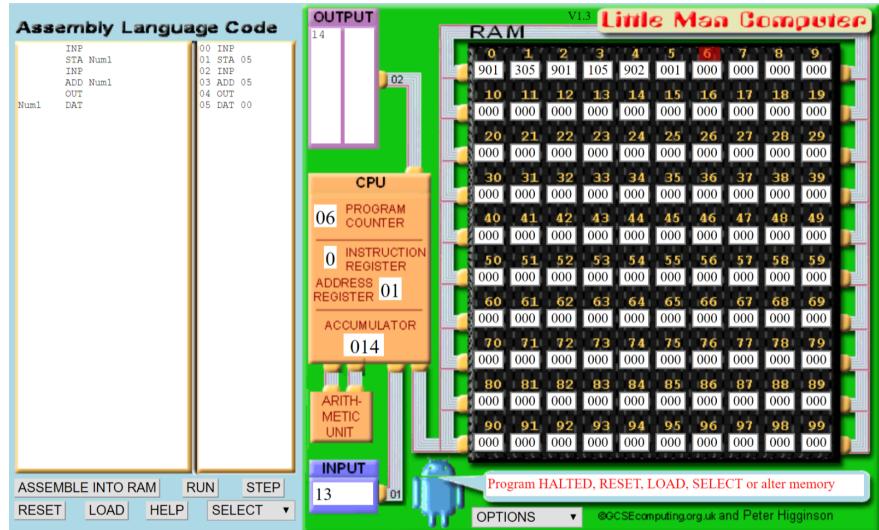


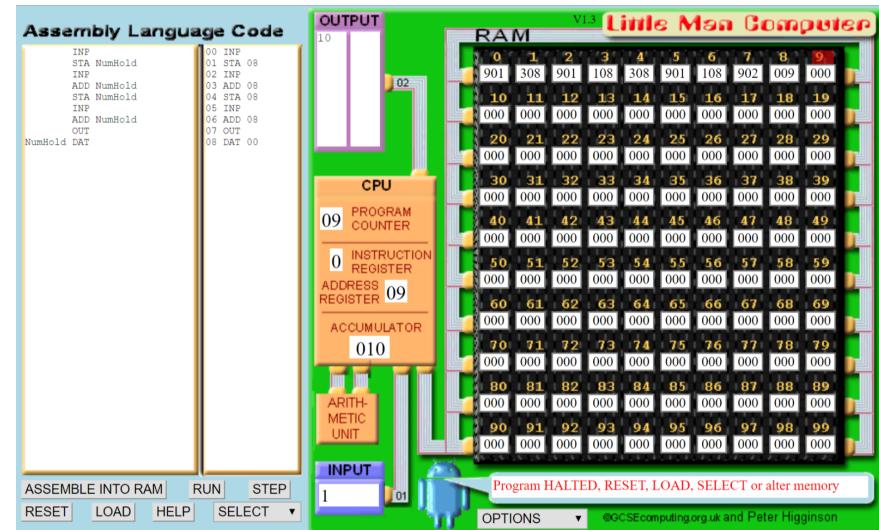
1. Input two numbers and add them together

```
//Input First number
INP
//Store first number in Num1
STA Num1
//Input Second Number
INP
//Add the first number to the second
ADD Num1
//Output the result
OUT
//Create a variable called Num1
Num1 DAT
```



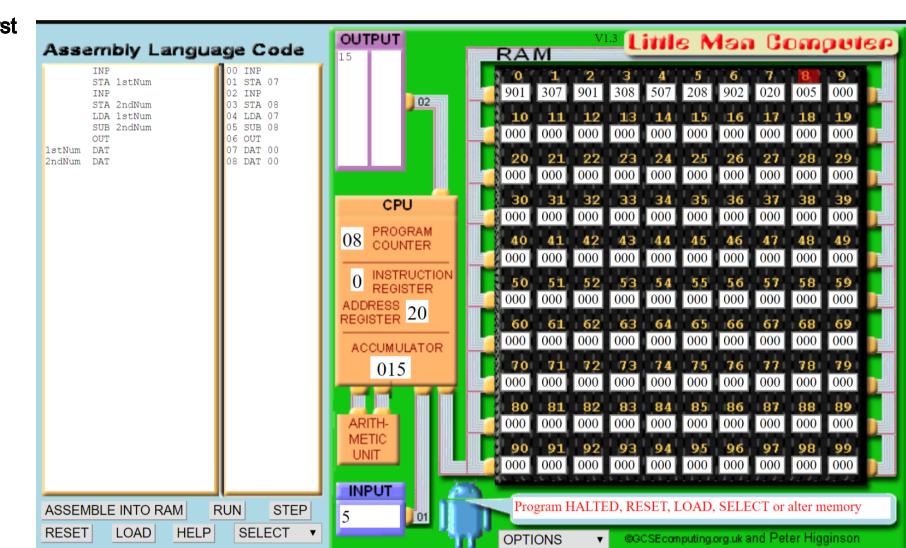
2. Input three numbers and add them together

```
//Input the first number
INP
//Store Number in NumHold
STA NumHold
//Input the second number
INP
//Add the Second Number to the value in numhold
ADD NumHold
//Store value in NumHold
STA NumHold
//Input the third number
INP
//Add 3rd number to value in numhold
ADD NumHold
//Output current number
OUT
//Create a variable called NumHold
NumHold DAT
```



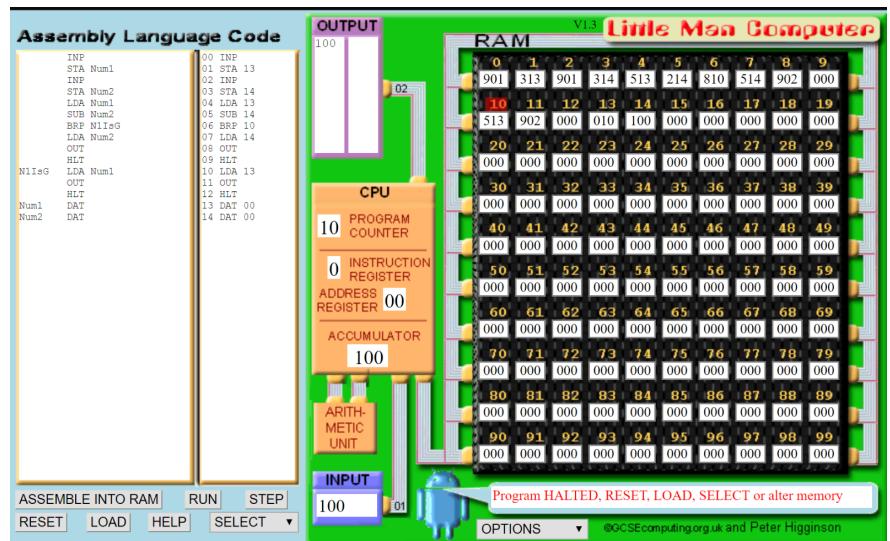
3. Input two numbers and subtract the second from the first

```
//Input 1st Number
INP
//Store value in 1stNum
STA 1stNum
//Input 2nd Number
INP
//Store value in 2ndNum
STA 2ndNum
//Load 1st Num
LDA 1stNum
//Subtract the 2ndNum
SUB 2ndNum
//Output result
OUT
//Create variable 1stNum
1stNum DAT
//Create variable 2ndNum
2ndNum DAT
```



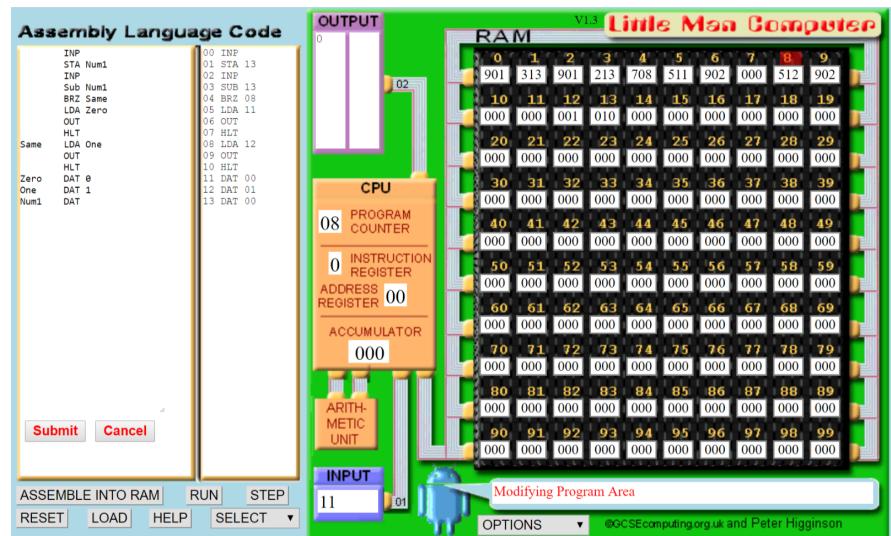
4. Input and compare two numbers, then output the larger one.

```
//Input first number
INP
//Store input in Num1
STA Num1
//Input second number
INP
//Store input in Num2
STA Num2
//Load Num1
LDA Num1
//Subtract Num2 from Num1
SUB Num2
//Check If resulting number is positive
//If it isn't go to N1IsG
BRP N1IsG
//Load Num2
LDA Num2
//Output Num2
OUT
//Stop Program
HLT
//Load Num1
LDA Num1
//Output Num1
OUT
//Stop program
HLT
//Create Num1 Variable
DAT
//Create Num2 Variable
Num2 DAT
```



5. Input and compare two numbers, then outputs 1 if they are the same or 0 if they are different

```
//Input first number
INP
//Store input in Num1
STA Num1
//Input Second number
INP
//Subtract Num1 from current value
Sub Num1
//If result is zero goto same
BRZ Same
//Load Zero
LDA Zero
//OUT Zero
OUT
//Stop program
HLT
//Load One
LDA One
//Out One
OUT
//Stop program
HLT
//Set zero to value 0
Zero DAT 0
//Set one to value 1
One DAT 1
//Create variable Num1
Num1 DAT
```



6. Input a number. The program then loops from that number down to zero, in iterations of 1

```
//Input Number
INP
//Store in Num1
STA Num1
//If Value = 0 goto same
Loop  BRZ Same
//Output number
OUT
//Subtract one from number
SUB One
//Go back to point loop always
BRA Loop
//Output number
Same  OUT Num1
//Set One to value 1
One   DAT 1
//Create varibale Num1
Num1  DAT
```

