

EXPERIMENT 1.4

Multiplication of two eight-bit hexadecimal numbers by successive addition.

Code:

```
multi.asm
1 ;multiplying 55h and 40h
2     MOV R1, #55H ; 1st number
3     MOV R0, #40H ; 2nd number
4 NEXT: ADD A, R1    ; adding R1 repeatedly
5     JNC LABEL
6     INC R6         ; increment R2 on carry
7 LABEL: DJNZ R0, NEXT ; add R1 to acc
8     MOV R7, A
```

Output:

Register	Value
r0	0x00
r1	0x55
r2	0x00
r3	0x00
r4	0x00
r5	0x00
r6	0x15
r7	0x40
Sys	
a	0x40
b	0x00
sp	0x07
sp_max	0x07
dptr	0x0000
PC \$	C:0x000B
states	344
sec	0.00017200
psw	
p	1
f1	0
ov	0
rs	0
f0	0
ac	1
cy	1

Memory 1																															
Address: 0:00																															
I:0x00:	00	55	00	00	00	00	00	15	40	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x14:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x28:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x3C:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x50:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x64:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x78:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
I:0x8C:	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

THE OUTPUT IS FOUND AT R7,R6