Ch7

4

Test: x301F

Finish: x3027

Save3: x3029

Save2: x302A

7

```
.ORIG x3000
AND R1,R1,#0
AND R2,R2,#0
AND R4,R4,#0
ADD R4,R4,#15
ADD R2,R2,#1 ;R2 is MASK that examines 1
LOOP AND R3,R0,R2
BRz N
ADD R1,R1,#1
N ADD R2,R2,R2
ADD R4,R4,xFFFF ;countdown
BRn EXIT
BRnzp LOOP
EXIT TRAP x25
.END
```

18

a) LDR R3, R1, #0

b) NOT R3, R3

c) ADD R3, R3, #1

Ch9

2

(a) 2^8=256 routines.

(b) Because program needs to put R7 back into PC, and the RET provides the function.

(c) 1

3

(a) Something like power button will start the clock.

(b) STI R0, MCR.

(c) LD R1, SaveR1

(d) The PC will point to the address after the HALT.

15

(a) TRAP x72

(b) Yes. but R0 is not saved.

17

(a) LD R3, NEGENTER

(b) STR R0, R1, #0

(c) ADD R1, R1, #1

(d) STR R2, R1, #0

18

(a) ADD R1, R1, #1

(b) TRAP x25

(c) ADD R0, R0, #5

(d) BRzp K