Bradley Crose

1) 0xfffffff9

0x 1111 1111 1111 1111 1111 1111 1111 1001

0x 0000 0000 0000 0000 0000 0000 0000 0110

+ 1

0111 = -7

2)

	Assembly	Hexadecimal	Memory Addresses
1	lw $t0, 0($s0)	0x8E080000	1) 0x1aef0000
2	addi $t1, $t1, -5	0x2129FFFB	2) 0x1aef0004
3	srl $t1, $t1, 2	0x00094882	3) 0x1aef0008
4	beq $t1, $s5, Exit	0x11350002	4) 0x1aef000c
5	addi $s0, $s0, 4	0x22100004	5) 0x1aef0010
6	j Loop	0x0AEF0000	6) 0x1aef0014

1 lw $t0, 0($s0) ∴ 0x8E080000

8 E 0 8 0 0 0 0

1000 1110 0000 1000 0000 0000 0000 0000

=2 addi $t1 $t1, -5 (1011)

2 1 2 9 F F F B

0010 0001 0010 1001 1111 1111 1111 1011

0x2129FFFB

3 srl $t1 $t1, 2

0 0 0 4 8 2

0000 0000 0000 1001 0100 1000 0010

4 e f 0 0 0 0

0100 1110 1111 0000 0000 0000 0000

Address (Loop)

0000 1010

1110 1111

0000 0000

0000 0000

0x0aef0000

OP code

000010 j Loop

0000 1010 1110 0000 0000 0000

5 addi $s0, $s0, 4

2 2 1 0 0 0 0 4

0010 0010 0001 0000 0000 0000 0000 0100

0x22100004

4 beq $t1 $s5 Exit

1 1 3 5 0 0 2

0001 0001 0011 0101 0000 0000 0010

0x11350002

3 0x02108020

0	2	1	0	8	0	2	0
0000	0010	0001	0000	1000	0000	0010	0000

0b 000000 | 10000 | 0000 | 1000 | 0000 | 10 0000
rs rt rd
↑ function = ADD

Therefor add $s0, $s0, $s0

4) $a0 is value to square, return in $v0

```
    li $t0, 0      # i Counter
Loop: bge $t0, $a0, quit # loop to square
    add $t1, $t1, $a0   # adds value
    addi $t0, $t0, 1    # i++
    j Loop

quit:
    move $v0, $t1       # Moves return to $v0
```