HW 1

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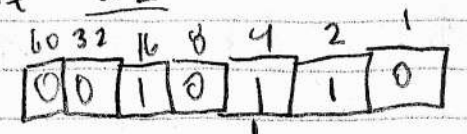
1. 5-bit of 22

22



Turn bits ON
1 = ON
0 = off

22 = 1 0 1 1 0

10110

2. 6-bit twos complement -23

-23 = 010111 opposite 1=0, 0=1

101000

+ 1 plus 1

-23 = 101001

101001

3. OP = 0, constant 0
rs = 9, $t1
rt = 8, $t0
rd = 10, $t2
Shamt = 0, amount to shift
funct = 34, indicates subtraction

sub $t2, $t1, $t0

4.

- add $t3, $t2, $zero
  - $t3: Destination
  - $t2, $zero: Source
- sub $t3, $t1, $t4
  - $t3: Destination
  - $t1, $t4: Source
- addi $t1, $t2, 100
  - $t1: Destination
  - $t2: Source
  - 100: INT
- lw $s1, 4($gp)
  - $s1: Destination
  - $gp: Source
- sw $s1, 12($gp)
  - $s1, $gp: Source, NO Destination
- bne $s1, $s2, loop4
  - $s1, $s2: Source - NO Destination