1.) For the code below draw the constraint graph. Label each edge with the cause of the constraint (i.e “RAW $2$, etc.).

```
LOOP:
    lw $1, 40($6)
    add $5, $5, $1
    sw $1, 20($5)
    addi $6, $6, 4
    addi $5, $5, -4
    beq $5, $0, LOOP
```

2.) For the code below draw the constraint graph. Then adjust the code to run as fast as possible on a pipelined processor like that in lab #4. Note that if you carefully adjust the program you should be able to fill all the delay slots of the program (tricky!).

```
LOOP:
    lw $2, 0($10)
    sub $4, $2, $3
    sw $4, 0($10)
    lw $5, 4($10)
    sub $6, $5, $3
    sw $6, 4($10)
    addi $10, $10, 8
    bne $10, $30, LOOP
```