

using main.cpp and assembly.txt

solution.cpp

```
$ mips assembly.txt 100
answer is : 10,21,93,88,67,0,44,89
after init
your answer is :
10,21,93,88,67,0,44,89
```

solution_pipeline.cpp

```
$ mips assembly.txt 100
answer is : 10,21,93,88,67,0,44,89
after init
clock: 0
I0: add $0,$1,$2 -> FETCH
2 4 6 88 67 45 44 89
-----

clock: 1
I0: add $0,$1,$2 -> EXECUTE
I1: sub $1,$3,$4 -> FETCH
2 4 6 88 67 45 44 89
-----

clock: 2
I0: add $0,$1,$2 -> WRITE 10 To $0
I1: sub $1,$3,$4 -> EXECUTE
I2: addi $2,$3,5 -> FETCH
10 4 6 88 67 45 44 89
-----

clock: 3
I1: sub $1,$3,$4 -> WRITE 21 To $1
I2: addi $2,$3,5 -> EXECUTE
I3: b label1 -> FETCH
10 21 6 88 67 45 44 89
-----

clock: 4
I2: addi $2,$3,5 -> WRITE 93 To $2
I3: b label1 -> EXECUTE
10 21 93 88 67 45 44 89
-----

clock: 5
I5: div $5,$5,$6 -> FETCH
10 21 93 88 67 45 44 89
-----

clock: 6
I5: div $5,$5,$6 -> EXECUTE
I6: beq $3,$1,label2 -> FETCH
10 21 93 88 67 45 44 89
-----

clock: 7
I5: div $5,$5,$6 -> WRITE 1 To $5
I6: beq $3,$1,label2 -> EXECUTE
10 21 93 88 67 1 44 89
-----

clock: 8
I7: div $5,$5,$6 -> FETCH
10 21 93 88 67 1 44 89
-----

clock: 9
I7: div $5,$5,$6 -> EXECUTE
I8: bnq $3,$1,label2 -> FETCH
10 21 93 88 67 1 44 89
-----

clock: 10
I7: div $5,$5,$6 -> WRITE 0 To $5
I8: bnq $3,$1,label2 -> EXECUTE
10 21 93 88 67 0 44 89
-----

clock: 11
I11: addi $2,$3,5 -> FETCH
10 21 93 88 67 0 44 89
-----

clock: 12
I11: addi $2,$3,5 -> EXECUTE
10 21 93 88 67 0 44 89
-----

clock: 13
I11: addi $2,$3,5 -> WRITE 93 To $2
10 21 93 88 67 0 44 89
-----

your answer is :
10,21,93,88,67,0,44,89
```