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Lista dos 10 programas MIPS

1 contador crescente (0 a 9)

```
addi $r0, $r6, 9
addi $r1, $r1, 1
beq $r1, $r0, 1
jump 1
hlt
```

2 Contador decrescente (9 a 0)

```
addi $r0, $r7, 9
addi $r6, $r7, 1
sub $r0, $r0, $r6
beq $r0, $r7, 1
jump 2
hlt
```

3 contador crescente\decrescente(0 a 9 e 9 a 0)

```
addi $r1, $r7, 9
addi $r6, $r7, 1
add $r0, $r0, $r6
beq $r1, $r0, 1
jump 2
sub $r0, $r0, $r6
beq $r0, $r7, 1
jump 5
jump 2
hlt
```

4 preencher toda a memoria com 25

```
addi $r1, $r7, 32
addi $r2, $r7, 25
sw $r2, 0($r0)
```

```
addi $r0, $r0, 1
beq $r0, $r1, 1
jump 2
hlt
```

5 prencher a memória metade com 25 metade com 50

```
addi $r1, $r7, 9
addi $r2, $r7, 25
sw $r2, 0($r0)
addi $r0, $r0, 1
beq $r0, $r1, 1
jump 2
addi $r1, $r7, 32
addi $r2, $r7, 50
beq $r0, $r1, 1
jump 2
hlt
```

6 contar valores 5 da memória

```
addi $r1, $r7, 32
addi $r2, $r7, 5
lw $r3, 0($r0)
addi $r0, $r0, 1
beq $r0, $r1, 4
beq $r2, $r3, 1
jump 2
addi $r6, $r6, 1
jump 2
hlt
```

7 multiplicar dois valores (9x5)

```
addi $r1, $r7, 9
addi $r2, $r7, 5
addi $r3, $r7, 1
beq $r2, $r7, 3
add $r0, $r0, $r2
sub $r2, $r2, $r6
jump 3
sw $r0, 0($r7)
hlt
```

8 dividir dois valores (45/9)

```
addi $r1, $r7, 45
addi $r2, $r7, 9
beq $r1, $r7, 3
sub $r1, $r1, $r2
addi $r6, $r6, 9
jump 2
sw $r6, 0($r7)
hlt
```

9 fibonacci

```
addi $r0, $r7, 1
addi $r1, $r7, 1
addi $r2, $r7, 1
addi $r5, $r7, 1
addi $r6, $r7, 15
sw $r1, $r7, 0
sw $r1, $r7, 1
sub $r6, $r6, $r0
addi $r5, $r5, 1
slt $r4, $r1, $r2
beq $r6, $r7, 7
beq $r4, $r7, 3
add $r1, $r1, $r2
sw $r1, $r5, 0
jump 7
add $r2, $r1, $r2
sw $r2, $r5, 0
jump 7
hlt
```

10 fatorial

```
addi $r1, $r7, 1
addi $r2, $r7, 1
addi $r3, $r7, 1
addi $r4, $r7, 0
sw $r2, $r4, 0
add $r0, $r2, $r7
```

```
addi $r4, $r4, 1
add $r3, $r4, $r7
beq $r3, $r7, 3
add $r2, $r2, $r0
sub $r3, $r3, $r1
jump 8
jump 4
```