



3.8 Código máquina a Ensamblador

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```
1 # $t1=a, $t0=b, $s0=c, $t3=d, $s3=e
2 000 sub $t1,$t0,$s0 # a=b-c
3 032 bne $t0,$s0,EXIT # b!=c => EXIT
4 064 WHILE: bgtz $s0, EXIT # c>0 => EXIT
5 096 add $t3,$t3,$s0 # d=d+c
6 128 sub $t0,$t0,$s3 # b=b-e
7 160 j WHILE
8 192 sub $t0,$t0,$s3 # b=b-e
9 224 EXIT:
```

Listing 1: Ensamblador MIPS-32

```
1 a=b-c;
2 if (b == c) {
3     while (c<=0) {
4         d=d+c;
5         b=b-e;
6     }
7     b=b-e;
8 }
```

Listing 2: C