

Ejercicio en C

```
int test(int a, int b, int c){
return a+b-c;
}
int main(){
int a = -2897415;
int b = 345;
int c;
int y = 845963;
c = y -4150000;
y = a-b+c;
if (y == 4587956)
c = y - 3456879;
else
int z = 25005478 + y;
return (2564 + y - b) + test(a,b,c);
}
```

Paso 1 (asignar registros)

```
a=%i0, b=%i1, c==%i2
y=%L0, z=%L1
```

Paso 2

```
test
0X0000 add %i0 %i1 %o00
0X0004 jmpl %07, 8, %g0
0X0008 sub &00 %i2 %00
```

Main

```
0X000C sethi 2830 %i0
0X0010 or %i0 505 i0
0X0014 mov 345 %i1-----or %g0 345 %i1
0X0018 mov 0 %i2
0X001C sethi 826 %L0
0X0020 or %L0 139 %L0
0X0024 sethi 4052 L2
0x0028 or %L2 752 %L2
0x002C sub %L0 % L2 %i2
0X0030 sub %i0 %i1 %i0
0x0034 add L0 %i2 %L0
0x0038 sethi 4480 %i3
0X003C or %L3 436 %L3
0X0040 cmp %L0 %L3 ----Subcc %L0 %L3 %g0
```

```
0X0044 bne a else
0X0048 sethi 3375 %L4
0X004C or %L4 879 %L4
0X0050 sub %L0 %L4 %i2
0X0054 ba a return
```

```
else
0X0058 sethi 24419 %L5
0X005C or %L5 422 %L5
0X0060 add %L5 %L0 %L1
```

Return

```
0X0064 add %L0 2564 %L6
0X0068 sub %L6 %i1 %L6
0X006C call test
0X0070 nop
0X0074 add %L6 %00 %00
```

LENGUAJE MAQUINA

ADD	Formato	DIRECCIONES	OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0000	10	1000	000000	11000	0	00000000	11001
JMLP			OP	RD	OP3	RG1	i	Imm13	
	3	0X0004	10	0000	111000	01111	1	0000000001000	
SUB			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0008	10	1000	000100	01000	0	00000000	11010
SETHI			OP	RD	OP2			Imm22	
	2	0X000C	10	10001	100			0000000000101100001110	
OR			OP	RD	OP3	RG1	i	Imm13	
	3	0X0010	10	11000	000010	11000	1	0000111111001	
MOV			OP	RD	OP3	RG1	i	Imm13	
	3	0X0014	10	11001	000010	00000	1	0000101011001	
MOV			OP	RD	OP3	RG1	i	Imm13	
	3	0X0018	10	11010	000010	00000	1	0000000000000	
SETHI			OP	RD	OP2			Imm22	
	2	0X001C	00	10000	100			0000000000001100111010	
OR			OP	RD	OP3	RG1	i	Imm13	
	3	0X0020	10	10000	000010	10000	1	0000010001011	
SETHI			OP	RD	OP2			Imm22	
	2	0X0024	00	10010	100			0000000000111111010100	
OR			OP	RD	OP3	RG1	i	Imm13	
	3	0X0028	10	10010	000010	10010	1	0001011110000	
SUB			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X002C	10	11010	000100	10000	0	00000000	10010
SUB			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0030	10	101100	000100	11000	0	00000000	11001
ADD			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0034	10	10000	000000	101100	0	00000000	11010

SETHI			OP	RD	OP2	Imm22			
	2	0X0038	00	10011	100	00000000010001100000000			
OR			OP	RD	OP3	RG1	i	Imm13	
	3	0X003C	10	10011	000010	10011	1	00001101101100	
SUBCC			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0040	10	00000	010100	10000	0	00000000	10011
BNE			OP	a	COND		disp22		
	2	0X0044	00	1	1001	010	0000000000000000000100		
SETHI			OP	RD	OP2	Imm22			
	2	0X0048	00	10100	100	110100101111			
OR			OP	RD	OP3	RG1	i	Imm13	
	3	0X004C	10	10100	000010	10100	1	0001101101111	
SUB			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0050	10	11010	000100	10000	0	00000000	10100
BA			OP	a	COND		disp22		
	2	0X0054	00	1	1000	0000000000000000000100			
SETHI			OP	RD	OP2	Imm22			
	2	0X0058	00	10101	100	0000000101111101100011			
OR			OP	RD	OP3	RG1	i	Imm13	
	3	0X005C	10	10101	000010	10101	1	0000110100110	
ADD			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0060	10	10001	000000	10101	0	00000000	10000
ADD			OP	RD	OP3	RG1	i	Imm13	
	3	0X0064	10	10110	000010	10000	1	01010000000100	
SUB			OP	RD	OP3	RG1	i	Unused/zero	RG2
	3	0X0068	10	10110	000100	11001	0	00000000	10110
			OP	dispp30					
CALL	1	0X006C	01	111111111111111111111110110					
			OP		OP2	-----0-----			
NOP	2	0X0070	00		100	00000000000000000000000			
			OP	RD	OP3	RG1	i	Unused/zero	RG2
ADD	3	0X0074	10	1000	000000	10110	0	00000000	01000