Lab 2

mov op2, %eax
mull op

$op_1 \times op_2$

$< 2^{32}$ $< 2^{32}$

$< 2^{64}$

| edx | eax |
63 32 31 0

(x : long 4
y : long 6
z : long 2^{31})

mov x, %eax
mull y

| 0 ... 0 | 0 ... 1 1 1 ... |
63 32 31 4 3 2 1 0

eax = 24
edx = 0
31 ... 1 0

div op
D = Î · C + R
R ← edx
Î ← op
C ← eax

(edx, eax)
6 / 4 6 % 4
mov $0, %edx
mov $6, %eax
mov $4, %ebx
~~mov $4, %ebx~~
div %ebx → eax = 1, edx = 2

cmp op2, op1
jb et
} if (op1 < op2) but bit ebx cont. exec ... jo

Tmp = op1 − op2 = 0 / je ⇔ jz
op1 == op2

```
i = 0
while (i<n){
    s += i;
    i++;
}
```

→

```
i = 0.
L1: if (i<n){
    s += i;
    i++;
    goto L1;
}
```

```
i = 0
L1: if (i==n) go to exit
    s += i
    i++;
    goto L1;
exit:
```

loop et → ecx = ecx - 1
→ if (ecx != 00) sott le et
altfel cont. exec. în jos