

```
; Q 2> Add two 32 bit signed numbers
```

```
SU      4300h
        [4300h]    =    4Eh        ; A = 12345678
        [4301h]    =    61h        ;
        [4302h]    =    0BCh       ;
        [4303h]    =    00h        ;
        [4304h]    =    0D2h       ; B = -5678
        [4305h]    =    0E9h       ;
        [4306h]    =    0FFh       ;
        [4307h]    =    0FFh       ;
        .
```

A

```
ORG 4200h
    lxi    h, 4300h
    mov    b, M
    inx    h
    mov    c, M
    inx    h
    mov    d, M
    inx    h
    mov    e, M
    inx    h
    mov    a, b
    add    M
    mov    b, a
    mov    a, c
    aci    0
    mov    c, a
    mov    a, d
    aci    0
    mov    d, a
    mov    a, e
    aci    0
    mov    e, a
    inx    h
    mov    a, c
    add    M
    mov    c, a
    mov    a, d
    aci    0
    mov    d, a
    mov    a, e
    aci    0
    mov    e, a
    inx    h
    mov    a, d
    add    M
    mov    d, a
    mov    a, e
    aci    0
    inx    h
    add    M
```

```
mov     e, a
inx     h
mov     M, b
inx     h
mov     M, c
inx     h
mov     M, d
inx     h
mov     M, e
hlt
.
```

```
G      4200h
INT                                ; (try '.' here)
```

```
SU      4308h
[4308h]  ->  20h      ; ans = 12340000
[4309h]  ->  4Bh      ;
[430Ah]  ->  0BCh     ;
[430Bh]  ->  00h      ;
.
```