```
;
; 32bitAdder.asm
;
; Created: 29/08/2017 08:59:21 p.m.
; Author : Gabriel Aguilar Lemus
;
.org 0
    ldi     XH, 0x01
    ldi     XL, 0x04
    ldi     YH, 0x01
    ldi     YL, 0x08
    ldi     ZH, 0x01
    ldi     ZL, 0x0c

    ldi     r18, 4

ciclo_suma:
    ld      r16, -X
    ld      r17, -Y
    add     r16, r17
    st      -Z, r16
    brcs    hay_carry
cont:
    dec     r18
    breq    fin
    rjmp    ciclo_suma
hay_carry:
    dec     XL
    ld      r16, X
    inc     r16
    st      X, r16
    inc     XL
    rjmp cont
fin:
    nop
    rjmp    fin
```