

## testFlags.s

```
.section .rodata
a:      .byte 69
b:      .byte 50
summand1: .byte 53
summand2: .byte -45

.section .text
.globl main
.type main, @function

main:
    pushq %rbp
    movq %rsp, %rbp

    movb $127, %sil    # sil = 01111111 = 127
    incb %sil          # sil = 10000000_2
                        #      = 128_10 > signed byte MAX, OF = 1

    incb %sil          # sil = 10000001_2 = -127_10, OF = 0

    movb a, %dil       # dil = 01000101 = 69
    shlb $2, %dil      # dil = 00010100 = 20
    shrb $3, %dil      # dil = 00000010 = 2, last digit out = 1
    shrb $1, %dil      # dil = 00000001 = 1, last digit out = 0
    shrb $1, %dil      # dil = 00000000 = 0, last digit out = 1

    movb b, %dil       # dil = 50
    incb %dil          # dil = 51 carry flag not changed

    movb summand1, %al  # al = 53
    movb summand2, %dil # dil = -45
    addb %dil, %al      # al = 8, carry flag set
    incb %al            # al = 9, carry flag not changed

# exit main
xorq %rax, %rax    # CF = 0, OF = 0
popq %rbp
ret
```