

(a) Assembly code segment

```
    ldi r18, 16
L1:  ld r17, X
    rcall SB
    st X+, r17
    dec r18
    brne L1
    clr r18
    ret
SB:  ldi ZL, lo8(SboxTable)
    ldi ZH, hi8(SboxTable)
    add ZL, r17
    clr r17
    adc ZH, r17
    lpm r17, Z
    ret
```

(b) Basic blocks of the segment

```
    ldi r18, 16
L1:  ld r17, X
    rcall SB
    st X+, r17
    dec r18
    brne L1
    clr r18
    ret
SB:  ldi ZL, lo8(SboxTable)
    ldi ZH, hi8(SboxTable)
    add ZL, r17
    clr r17
    adc ZH, r17
    lpm r17, Z
    ret
```