

8 bit arithmetic operations (8051)

Addition

```
MOV R0, #00

MOV A, #FE

ADD A, #01

JNC LABEL

INC R0

LABEL: MOV DPTR, #4150

MOVX @DPTR, A

MOV A, R0

INC DPTR

MOVX @DPTR, A

HERE: SJMP HERE
```

Subtraction

```
MOV R0, #00

CLR C

MOV A, #FF

SUBB A, #01

JNC LABEL

INC R0

CPL A

INC A

LABEL: MOV DPTR, #4150

MOVX @DPTR, A
```

MOV A, R0

INC DPTR

MOVX @DPTR, A

HERE: SJMP HERE

Multiplication

MOV A, #03

MOV B, #05

MUL AB (BA = A x B)

MOV DPTR, #4150

MOVX @DPTR, A

INC DPTR

MOV A, B

MOVX @DPTR, A

HERE: SJMP HERE

Division

MOV A, #0F

MOV B, #03

DIV AB (A/B ; A =QUOTIENT, B = REMINDER)

MOV DPTR, #4150

MOVX @DPTR, A

INC DPTR

MOV A, B

MOVX @DPTR, A

HERE: SJMP HERE