PROGRAM 09

```
.include"m328Pdef.inc"

.def var_al =r16
.def var_ah =r17
.def var_bl =r18
.def var_bh =r19
.def var_cl =r20
.def var_ch =r21
.def var_d =r22

.cseg
.org  0X00
        rjmp main

main:   ldi var_bl,220
        ldi var_bh,0

        ldi var_cl,LOW(500)
        ldi var_ch,high(500)

        ldi var_d,15
        ;mov var_al,var_bl
        ;mov var_ah,var_bh

        movw var_al,var_bl
        mul var_al,var_d

        mov var_al,r0
        mov var_ah,r1

        add var_al,var_cl
        adc var_ah,var_ch

        ldi xl,low(var_a)           ;0x08
        ldi xh,high(var_a)          ;0x01
        st  x+,var_al
        st  x+,var_ah
        st  x+,var_bl
        st  x+,var_bh

  end: rjmp end


.dseg
.org  0x10C
      var_a : .byte 2
      var_b : .byte 2
      var_c : .byte 2
```

Processor Status

Name	Value
Program Counter	0x00000012
Stack Pointer	0x08FF
X Register	0x0110
Y Register	0x0000
Z Register	0x0000
Status Register	I T H S V N Z C
Cycle Counter	39
Frequency	1.000 MHz
Stop Watch	39.00 µs
Registers	
R00	0xE4
R01	0x0C
R02	0x00
R03	0x00
R04	0x00
R05	0x00

Watch 1

Name	Value	Type
var_al	0xd8	byte{reg
var_ah	0x0e	byte{reg
var_bl	0xdc	byte{reg
var_bh	0x00	byte{reg
var_cl	0xf4	byte{reg
var_ch	0x01	byte{reg
var_d	0x0f	byte{reg

Memory 4

Memory: data IRAM | Address: 0x0100,data

```
data 0x0100  00 00 00 00 00 00 00 00 00 00 00 00 d8 0e dc 00 00 00 00  ............Q.....
data 0x0113  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x0126  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x0139  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x014C  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x015F  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x0172  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x0185  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x0198  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
data 0x01AB  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  ...................
```