-

№6

:

: -02-23

1

1.
2.
3.
4.

2

NASM.

3

1. №6, lab6-1.asm.(.1).

```
[mdyanushkevich@fedora ~]$ mkdir ~/work/arch-pc/lab06
[mdyanushkevich@fedora ~]$ cd ~/work/arch-pc/lab06
[mdyanushkevich@fedora lab06]$ touch lab6-1.asm
```

mkdir lab06, , touch lab6-1.asm.

```
%include 'in_out.asm'

SECTION .bss
buf1: RESB 80

        SECTION .text
        GLOBAL _start
         _start:

        mov eax, '6'
        mov ebx, '4'
        add eax,ebx
        mov [buf1],eax
        mov eax,buf1
        call sprintLF

        call quit
```

2. lab6-1.asm 6.1.(.2).
lab6-1.asm gedit, 6.1.

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-1.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-1 lab6-1.
[mdyanushkevich@fedora lab06]$ ./lab6-1
j
```

3. .(.3).
, , .
“j”.

```
mov eax, 6
mov ebx, 4
```

4. , .(.4,5).

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-1.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-1 lab6-1.o
[mdyanushkevich@fedora lab06]$ ./lab6-1
```

6.1 , . , .
. ASCII, , 10
“ ”, .

5. lab6-2.asm. 6.2.(.6,7).

```
[mdyanushkevich@fedora lab06]$ touch lab6-2.asm
```

```
%include 'in_out.asm'

SECTION .text
GLOBAL _start
_start:
        mov eax, '6'
        mov ebx, '4'
        add eax,ebx
        call iprintLF

        call quit
```

lab06 lab6-2.asm
6.2.

6. .(.8).

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-2.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-2 lab6-2.
[mdyanushkevich@fedora lab06]$ ./lab6-2
106
[mdyanushkevich@fedora lab06]$
```

, . .
106.

7. 6.2. .(.9,10).

```
%include 'in_out.asm'

SECTION .text
GLOBAL _start
_start:
        mov eax, 6
        mov ebx, 4
        add eax,ebx
        call iprintLF

        call quit
```

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-2.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-2 lab6-2.o
[mdyanushkevich@fedora lab06]$ ./lab6-2
10
```

lab6-2.asm . , . , 10.

8. lab6-2.asm iprintLF iprint.(.11,12).

```
call iprint
```

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-2.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-2 lab6-2.o
[mdyanushkevich@fedora lab06]$ ./lab6-2
10[mdyanushkevich@fedora lab06]$
```

lab6-2.asm iprintLF iprint. . 10. iprintLF, iprint .

9. lab6-3.asm lab06. 6.3. .(.13,14,15).

```
touch lab6-3.asm
```

```
%include 'in_out.asm'

        SECTION .data

        div: DB 'Результат: ',0
        rem: DB 'Остаток от деления: ',0
        SECTION .text
        GLOBAL _start
        _start:
        mov eax,5
        mov ebx,2
        mul ebx
        add eax,3
        xor edx,edx
        mov ebx,3
        div ebx

        mov edi,eax


        mov eax,div
        call sprint
        mov eax,edi
        call iprintLF

        mov eax,rem
        call sprint
        mov eax,edx
        call iprintLF

        call quit
```

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-3.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-3 lab6-3.o
[mdyanushkevich@fedora lab06]$ ./lab6-3
Результат: 4
Остаток от деления: 1
[mdyanushkevich@fedora lab06]$
```

touch lab6-3.asm. 6.3.

. 4, 1.

10. lab6-3.asm ( ) = (4 ∗ 6 + 2)/5.

```
%include 'in_out.asm'

        SECTION .data

        div: DB 'Результат: ',0
        rem: DB 'Остаток от деления: ',0
        SECTION .text
        GLOBAL _start
        _start:
        mov eax,4
        mov ebx,6
        mul ebx
        add eax,2
        xor edx,edx
        mov ebx,5
        div ebx

        mov edi,eax


        mov eax,div
        call sprint
        mov eax,edi
        call iprintLF

        mov eax,rem
        call sprint
        mov eax,edx
        call iprintLF

        call quit
```

(.16,17).

```
[mdyanushkevich@fedora lab06]$ nasm -f elf lab6-3.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o lab6-3 lab6-3.o
[mdyanushkevich@fedora lab06]$ ./lab6-3
Результат: 5
Остаток от деления: 1
```

lab6-3.asm , ( ) = (4 ∗ 6 + 2)/5.
, . 5,
1.

11. variant.asm lab06. 6.4.
.(.18,19,20)

```
[mdyanushkevich@fedora lab06]$ touch variant
```

```
%include 'in_out.asm'

SECTION .data
msg: DB 'Введите No студенческого билета: ',0
rem: DB 'Ваш вариант: ',0

SECTION .bss
x: RESB 80

SECTION .text
GLOBAL _start
_start:

mov eax, msg
call sprintLF

mov ecx, x
mov edx, 80
call sread

mov eax,x
call atoi

xor edx,edx
mov ebx,20
div ebx
inc edx

mov eax,rem
call sprint
mov eax,edx
call iprintLF

call quit
```

```
[mdyanushkevich@fedora lab06]$ nasm -f elf variant.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o variant variant.o
[mdyanushkevich@fedora lab06]$ ./variant
Введите No студенческого билета:
1132231840
Ваш вариант: 1
```

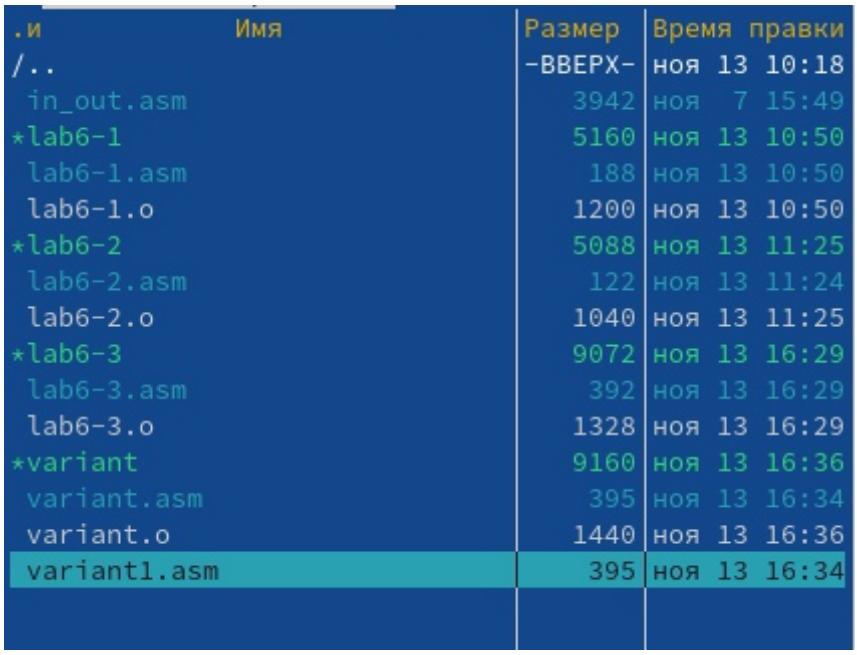
touch variant.asm lab06. 6.4. . , . (-1132231840). 1, , №1.

4

1. , “ :” mov eax,rem, call sprint.
2. . eax , , edx .
3. Call atoi ASCII .
4. mov eax,x - , . call atoi xor edx,edx mov ebx,20 div ebx inc edx
5. edx.
6. eax, 1, eax.
7. mov eax,edx - , . call iprintLF

5

1. asm. y=f(x). .(.21).



.и Имя	Размер	Время правки
/..	-ВВЕРХ-	ноя 13 10:18
in_out.asm	3942	ноя 7 15:49
*lab6-1	5160	ноя 13 10:50
lab6-1.asm	188	ноя 13 10:50
lab6-1.o	1200	ноя 13 10:50
*lab6-2	5088	ноя 13 11:25
lab6-2.asm	122	ноя 13 11:24
lab6-2.o	1040	ноя 13 11:25
*lab6-3	9072	ноя 13 16:29
lab6-3.asm	392	ноя 13 16:29
lab6-3.o	1328	ноя 13 16:29
*variant	9160	ноя 13 16:36
variant.asm	395	ноя 13 16:34
variant.o	1440	ноя 13 16:36
variant1.asm	395	ноя 13 16:34

```
%include 'in_out.asm'

        SECTION .data
        msg: DB 'Введите число: ',0

        SECTION .bss
        x: RESB 80

        SECTION .text
        GLOBAL _start
        _start:

        mov eax, msg
        call sprint
        mov ecx,x
        mov edx,80
        call sread

        mov eax,x
        call atoi
        mov ebx,2
        mul ebx
        add eax,10
        mov ebx,3
        div ebx

        mov edi,eax

        mov eax,edi
        call iprintLF

        call quit
```

variant1.asm, midnight commander .

,

y=(10+2x)/3, 1=1, 2=10.

```
[mdyanushkevich@fedora lab06]$ nasm -f elf variant1.asm
[mdyanushkevich@fedora lab06]$ ld -m elf_i386 -o variant1 var
[mdyanushkevich@fedora lab06]$ ./variant1
Введите число: 10
10
[mdyanushkevich@fedora lab06]$ gedit variant1.asm
[mdyanushkevich@fedora lab06]$ ./variant1
Введите число: 1
4
[mdyanushkevich@fedora lab06]$ ./variant1
Введите число: 10
10
```

2. .(.23).

, .

. 4 10, , .

6

NASM,

y=f(x).

Linux NASM.