

РОССИЙСКИЙ УНИВЕРСИТЕТ ДРУЖБЫ НАРОДОВ

Кафедра прикладной информатики и теории вероятностей

Факультет физико-математических и естественных наук

Кафедра прикладной информатики и теории вероятностей

ЛАБОРАТОРНАЯ РАБОТА № 2

дисциплина: Архитектура компьютера

Студент: Бегин Станислав Александрович

Группа: НПИбд-01-23

МОСКВА

2024 г.

Цель работы:

Научится считать базовые арифметические выражения на ассемблере x32 nasm

Описание лабораторной работы:

```
Файл Правка Вид Поиск Терминал Справка
sabegin@sabegin-Lenovo-Rescuer-151SK: ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06

sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ nasm -f elf x.asm
x.asm:13: error: label or instruction expected at start of line
x.asm:14: error: label or instruction expected at start of line
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ nasm -f elf x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ ./x
Инициализация:
x
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ nasm -f elf x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ ./x
}
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ nasm -f elf x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ ./x
lab06
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x.o
rm: невозможно удалить 'x/o': Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ cp x.asm ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
sabegin@sabegin-Lenovo-Rescuer-151SK:~/Заргук$ cd ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
bash: /home/sabegin/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/: 310 katarora
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ mkdir lab06
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ mv x.asm lab06
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ cd lab06
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ cp x.asm lab6-2.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ touch lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 lab6-1.o lab6-1.o
ld: cannot find lab6-1: Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
ld: cannot find lab6-1.o: Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in out.asm lab6-1.asm lab6-2.asm x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in out.asm lab6-1.asm lab6-2.asm x.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
ld: warning: cannot find entry symbol start; not setting start address
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-1
}
sabegin@sabegin-Lenovo-Rescuer-151SK:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$
```

Создал lab6-1, и вывел результат

```
sabegin@sabegin-Lenovo-Rescuer-1515K: ~/3argysxk
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ rm l.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ nasm -f elf64 l.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ ld l.o -o l
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ ./l
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ rm l
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ rm l.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab05$ ls
a.asm g.asm g.o lab5-1 lab5-1.asm lab5-1.o lab5-2 lab5-2.asm lab5-2.o lab5.asm l.asm report5.docx report5.md report5.pdf report5.md ss ss.asm ss.o z z.asm z.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ cd 3argysxk/
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ls
hello (l).asm hello.asm in.out.asm in.out.asm lab02.pdf x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
x.asm:31: error: invalid combination of opcode and operands
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
x.asm:31: error: invalid combination of opcode and operands
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
x.asm:31: error: expression syntax error
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ./x
Введите строку:
kkk
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ls
hello (l).asm hello.asm in.out.asm in.out.asm lab02.pdf x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
x.asm:13: error: label or instruction expected at start of line
x.asm:14: error: label or instruction expected at start of line
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ./x
Введите строку:
x
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ nasm -f elf x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ./x
106
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$
```

Создал lab6-2, и вывел результат

```
sabegin@sabegin-Lenovo-Rescuer-1515K: ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ld -m elf_i386 -o x x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ ./x
106
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ gedit x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
rm: невозможно удалить 'x/o': Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ rm x.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/3argysxk$ cp x.asm ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ mkdir lab06
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ mv x.asm lab06
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ cd lab06
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ cp x.asm lab6-2.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ touch lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 lab6-1 -o lab6-1.o
ld: cannot find lab6-1: Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
ld: cannot find lab6-1.o: Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in.out.asm lab6-1.asm lab6-2.asm x.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in.out.asm lab6-1.asm lab6-1.o lab6-2.asm x.asm
ld: warning: cannot find entry symbol; start; not setting start address
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-1
.
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-1
lab6-1
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-1 lab6-1.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-1
lab6-1
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$
```

Проверил, что будет если у чисел убрать апострофы и сменить iprintLF на iprint - две пустые строки и одна пустая строка

```
Файл Правка Вид Поиск Терминал Справка
sagebin@sagebin-Lenovo-Rescuer-1515K: ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06

sagebin@sagebin-Lenovo-Rescuer-1515K:~/jargysas$ rm x
sagebin@sagebin-Lenovo-Rescuer-1515K:~/jargysas$ rm x.o
rm: невозможно удалить 'x.o': Нет такого файла или каталога
sagebin@sagebin-Lenovo-Rescuer-1515K:~/jargysas$ rm x.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/jargysas$ cp x.asm ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
sagebin@sagebin-Lenovo-Rescuer-1515K:~/jargysas$ ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
lab06 ~/home/sagebin/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/: 310 variant
sagebin@sagebin-Lenovo-Rescuer-1515K:~/jargysas$ cd ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ mkdir lab06
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ mv x.asm lab06
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ cd lab06
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ cp x.asm lab6-2.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ touch lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 lab6-1 -o lab6-1.o
ld: cannot find lab6-1: Нет такого файла или каталога
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 -o lab6-1 lab6-1.o
ld: cannot find lab6-1.o: Нет такого файла или каталога
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in out.asm lab6-1.asm lab6-2.asm x.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in out.asm lab6-1.asm lab6-1.o lab6-2.asm x.asm
ld: warning: cannot find entry symbol _start; not setting start address
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 -o lab6-1 lab6-1.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-1
}
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-3.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 -o lab6-3 lab6-3.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-3
Результат: 4
Остаток от деления: 1
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$
```

Создал lab6-3, и вывел результат

```
Файл Правка Вид Поиск Терминал Справка
sagebin@sagebin-Lenovo-Rescuer-1515K: ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06

sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs$ cd lab06
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ cp x.asm lab6-2.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ touch lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 lab6-1 -o lab6-1.o
ld: cannot find lab6-1: Нет такого файла или каталога
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 -o lab6-1 lab6-1.o
ld: cannot find lab6-1.o: Нет такого файла или каталога
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in out.asm lab6-1.asm lab6-2.asm x.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ls
in out.asm lab6-1.asm lab6-1.o lab6-2.asm x.asm
ld: warning: cannot find entry symbol _start; not setting start address
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-1.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-1.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-3.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 -o lab6-3 lab6-3.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-3
Результат: 4
Остаток от деления: 1
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-3
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-3.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ touch variant.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit variant.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf variant.asm
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -o elf_1386 -o variant variant.o
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./variant
Выдайте & студенческого билета:
1032221793
how Report: 4
sagebin@sagebin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$
```

Создал variant, и вывел результат

Ответы на вопросы:

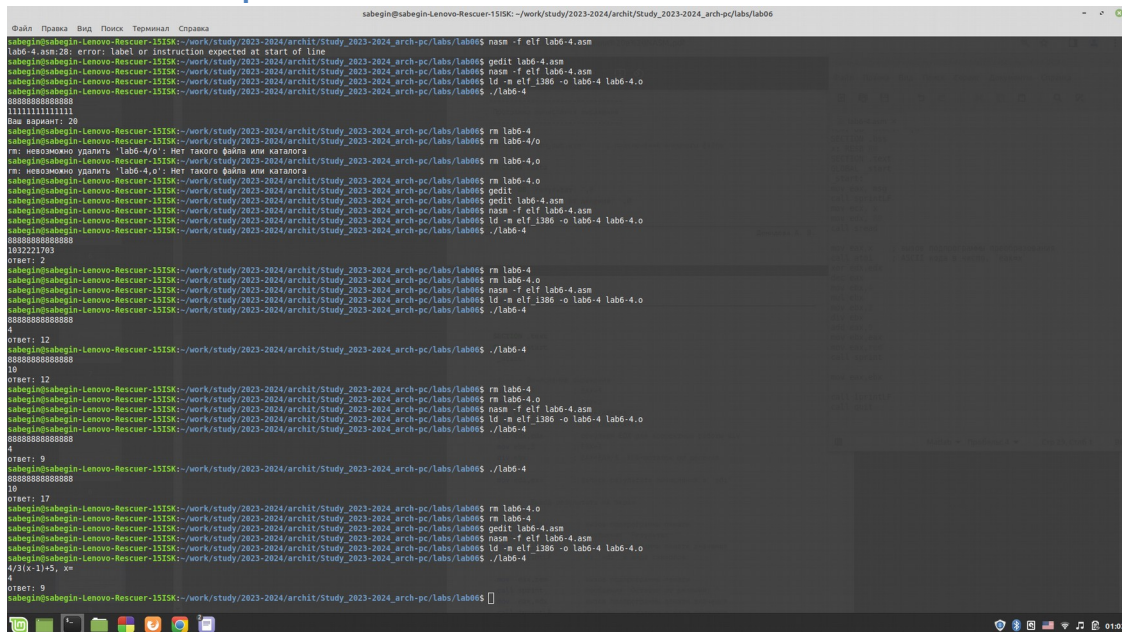
1. mov eax,rem call sprint
2. Для чтения вводимой переменной (без перевода)
3. Для перевода чисел в десятиричную систему
4. mov ebx,20 div ebx inc edx

5. `edx`
6. Для прибавления единички
7. `mov eax,edx call iprintLF`

Вывод:

Научился делать элементарные арифметические действия и выводить результат

Самостоятельная работа:



```
sabegin@sabegin-Lenovo-Rescuer-1515K: ~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-4.asm
lab6-4.asm:28: error: label or instruction expected at start of line
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-4 lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
8888888888888888
1111111111111111
0x00000000: 20
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4.o
rm: не существует файла 'lab6-4.o': Нет такого файла или каталога
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-4 lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
8888888888888888
1032221793
0x00000000: 2
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-4 lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
8888888888888888
4
0x00000000: 12
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
8888888888888888
10
0x00000000: 12
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-4 lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
8888888888888888
4
0x00000000: 9
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
8888888888888888
10
0x00000000: 17
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ rm lab6-4
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ gedit lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ nasm -f elf lab6-4.asm
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ld -m elf_i386 -o lab6-4 lab6-4.o
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$ ./lab6-4
431a-1145, ex
4
0x00000000: 9
sabegin@sabegin-Lenovo-Rescuer-1515K:~/work/study/2023-2024/archit/Study_2023-2024_arch-pc/labs/lab06$
```

Создал lab6-3, и проверил результат

Вывод:

Полнее освоил материал, и повторил его