

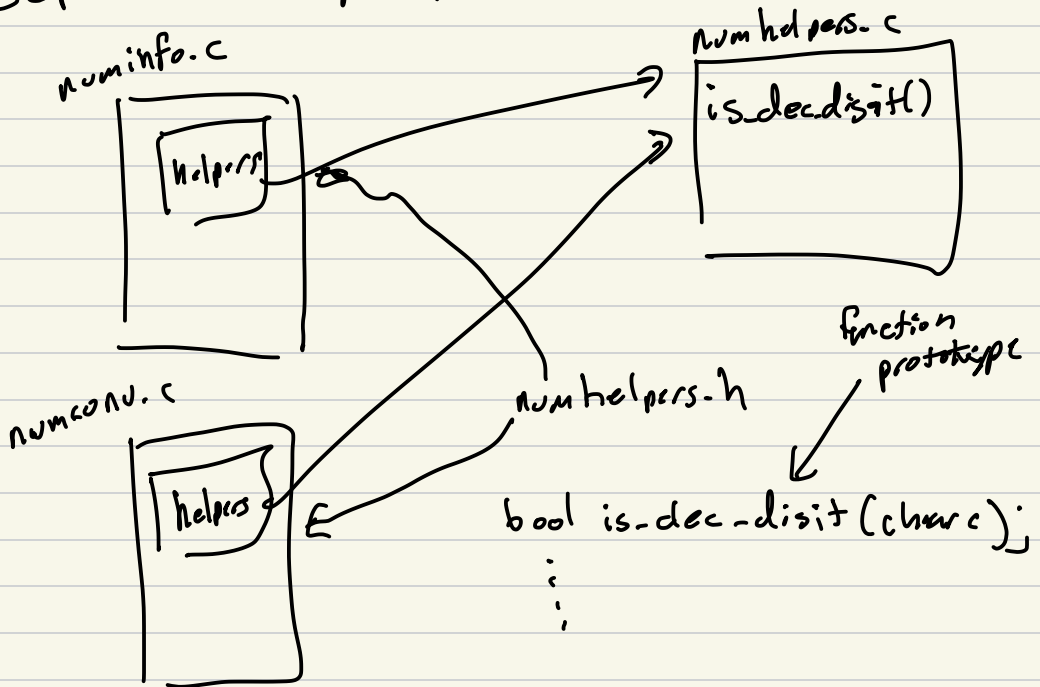
CS 315-02 RISC-V Assembly 1

Project 01

Makefile

numinfo
numconv

Separate Compilation



At the top of numinfo.c and numconv.c

```
#include <stdio.h>
```

```
;
```

```
#include "numhelpers.h"
```

```
gcc -o numinfo numinfo.c numhelpers.c
```

```
gcc -o numconv numconv.c numhelpers.c
```

base 2 ^{33 32 31} 0 1 0 0 1 1 . . . - 1 1 1 1 ⁰ ←

base 16 ^{9 8 7} 0 x A B E D 1 2 3 4 ⁰ ←

base 10 ²³ 4 6:11
 ¹⁰
 4,000,000,000

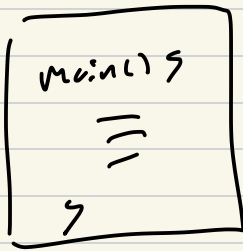
RISC-V Assembly Language

Human Readable form of

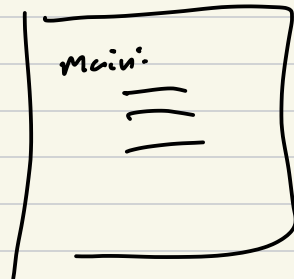
machine code / machine language

add t0, t1, t0

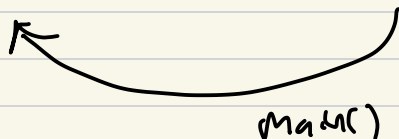
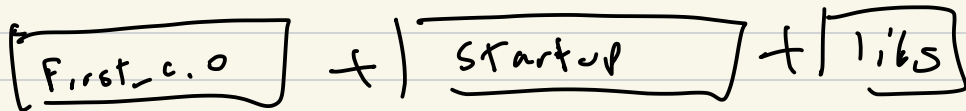
first.c.c

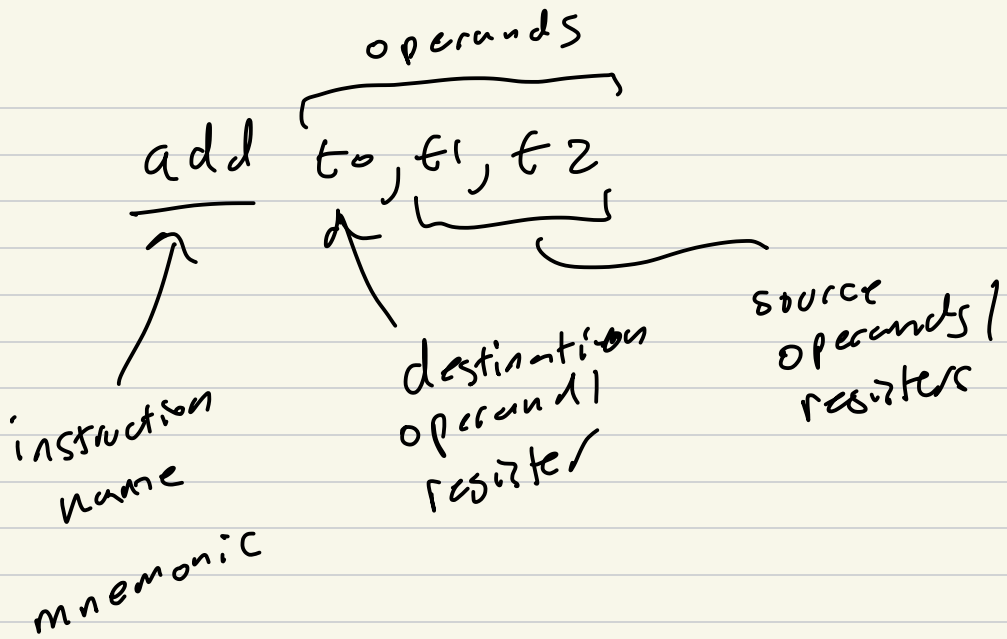


first.s.s



gcc -o first_c first_c.c





Registers

RISC-V 64-bit

32 registers where each register holds a 64 bit value

`uint32_t`

`x0, x1, ..., x31`

`a0, a1, ..., t0, t1, ...`