C.S 315-02 Project 03

Project02 Exam Prols due 11:59

Tue strings 1b/sb
2's complement
Wed bits

gdb on string functions
debug
x/ examine memory

---

reverse string rstr
calling strlen

```
.global rstr_s
.global strlen
rstr_s:
```

preserve

#a0 ← addr of str
call strlen
← caller saved a0, a1, ... to th...

restore

Bit manipulation

NOT in RISC-V

```
li t0, -1
xor a0, a0, t0
```

```
  0000 0001
~ 1111 1110
+        1
-----------
  1111 1111
```

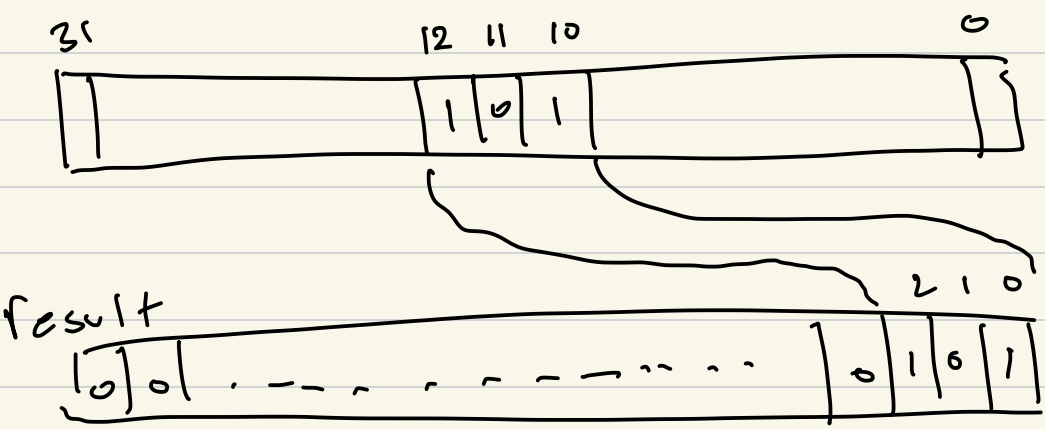
```
a0 = 1001 0011
XOR  1111 1111
-------------
  0110 1100
```

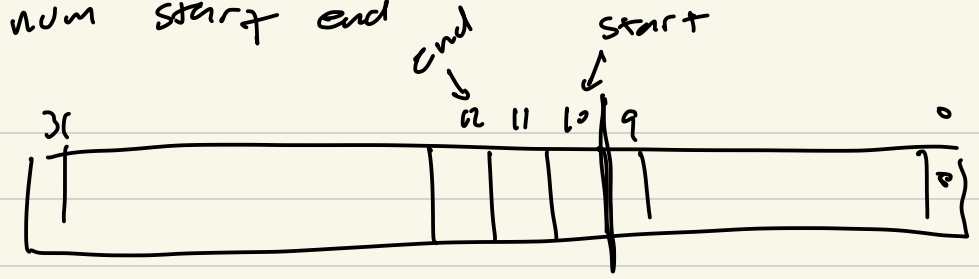
get_bitseq

num — 32 bit value

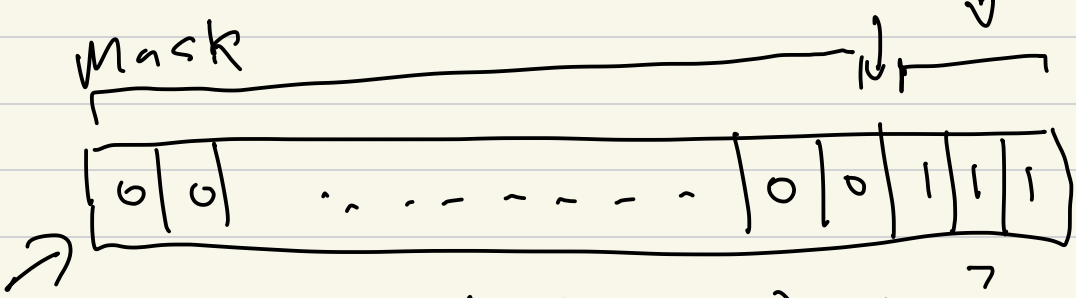
start bit pos

end bit pos

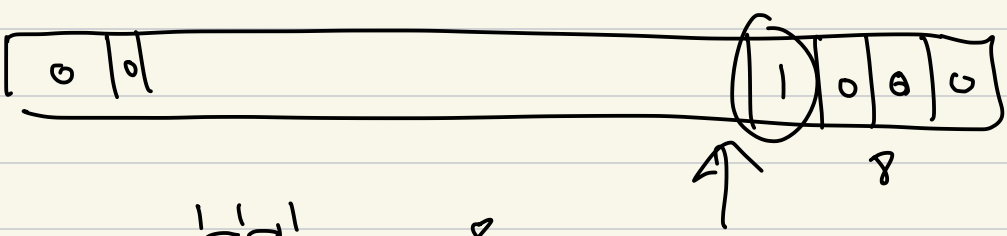




x >> start len



len = (end - start) + 1



1000 - 1 = 0111

8 - 1 = 7

0b1 << len

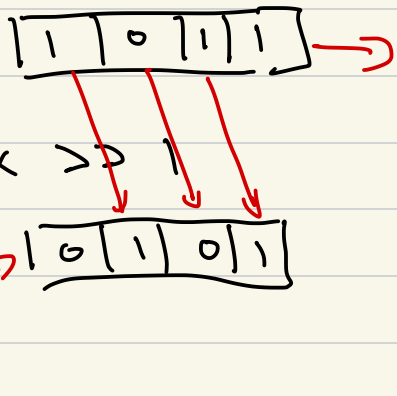
0001

1000

SRL

uint4_t

x =



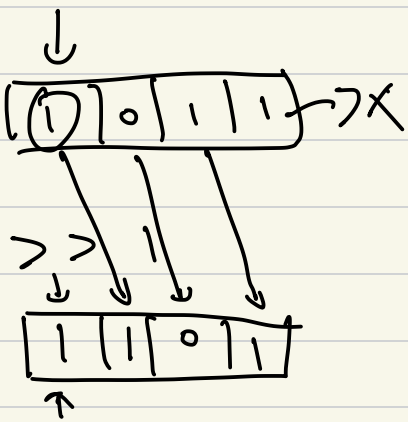
x >> 1

uint

SRL

int4_t

Y



int

Y >> 1

SRA