

Can we review the design for night shifters.

\lfloor signed = hard code with 1's ?
unsigned = hard code with 0's ?

~~Can we review the components of an encoded instruction?~~

Not on Exam

Midterm Exam II 11/13/24

Theoretical Part:

- 1 or 2 exercises
- 1 sheet front/back notes
- 4:30 - 5:50

Practical Part:

- Take home
- C + RISC-V programming
- 4:30 pm to 11:59 PM
- try not to use temporary registers

Stacks

Review

```
int f(int a) {  
    return a+1;  
}
```

```
int g(int b) {  
    return f(b)+1;  
}
```

```
int h(int a, int b) {  
    return f(a) + g(b);  
}
```

Main U

$l = h(17, 42);$

BRLK $t \leftarrow \text{put}$

PC \leftarrow new address

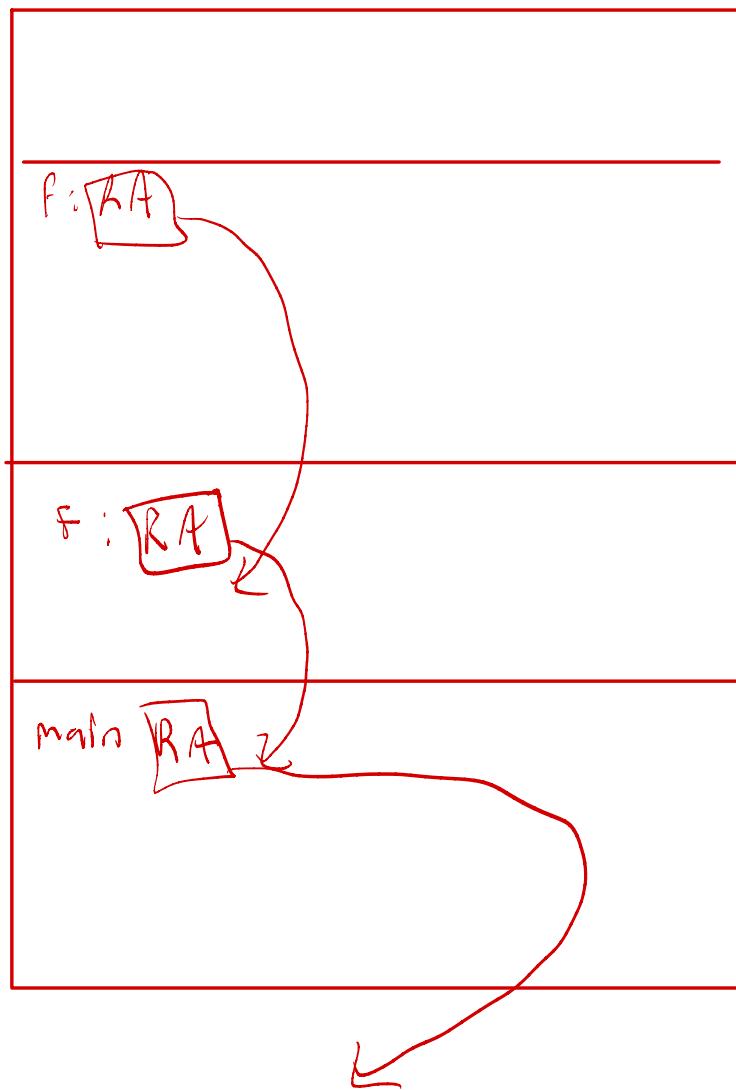
RA $\leftarrow t$

Stacks

```
int f (int n) {  
    if (n == 0) return 1;  
    return n + f (n-1);  
}
```

main:

$c = f(5)$;



Register Allocation

```
int f (int  $r_0$ , int  $r_1$ ) {  
    int c; // lives on  $r_3$  and stack  
    g (&c,  $a$ ,  $b$ );  
    return c - 17;  
}  $r_6$ 
```

