

## LA Worksheet #3

1. `char* arr[10][6];`

↳ `char*` → 8 bytes

$8 \cdot 60 = 480 \text{ bytes}$

4. → `rbp`

→ `rbx, rbp`

after call → return address is on `bp`

`401039`

2. `typedef struct {`

`char shookie;`

`int tata;`

`char cookie;`

`double chinmy;`

`} bt`

`void main (int argc, char** argv) {`

`bt band[7]`

`printf("%.0\n", (int) sizeof(band));`

`}`

↳ `shookie` → 1 byte ] +3 padding

`tata` → 4 bytes

`cookie` → 1 byte ] +7 padding

`chinmy` → 8 bytes

24 bytes / bt

$24 \times 7 = 168 \text{ bytes}$

`168`

5. `rdi + rdx` → `eax`

↳ `index + dist` → `eax`

$3 \cdot rdi$  → `rdx`

$24 \cdot rdi + rsi + array\_start$

$24 \cdot index + pos + start$

↳ `char* ptr = (char*) &array[index].first`

↳ `int x = func0(1, 4, 12);`

3. `char, long, float*, double, int, float`

1 4 8 8 4 8

`struct Westeros {`

`float* lannister;`

`double targaryen;`

`float arlyn;`

`long stark;`

`int greyjoy;`

`char tully;`

`} → size 30 bytes`