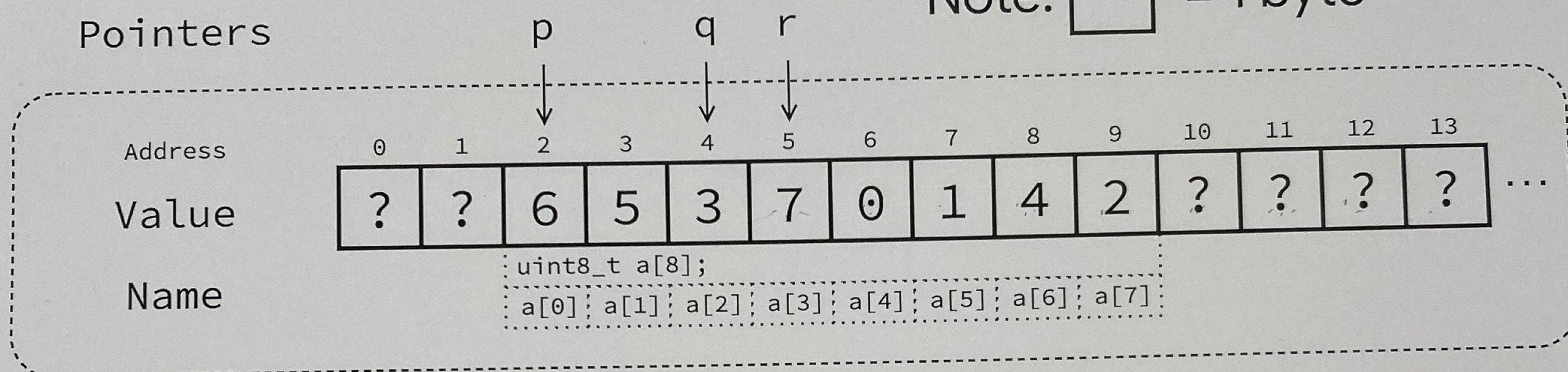# Code

```c
#include <stdint.h>
#define u8 uint8_t

int main() {
  u8 a[8] = {6, 5, 3, 7, 0, 1, 4, 2};
  u8 *p = &a[0];
  u8 *q = &a[2];
  u8 *r = &a[3];
  // <<< Evaluate values at here!
}
```

# Memory

Pointers        p    q  r                Note: ☐ = 1 byte

| Address | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Value | ? | ? | 6 | 5 | 3 | 7 | 0 | 1 | 4 | 2 | ? | ? | ? | ? | ... |
| Name | | | a[0] | a[1] | a[2] | a[3] | a[4] | a[5] | a[6] | a[7] | | | | | |

uint8_t a[8];

# Q. Fill answers in digits ( or ? for undefined behavior)

Note: _ is a place holder
So the cell on row "a[_]" and col "0" should be filled with the value of "a[0]"

| | 0 | 1 | a[0] | a[1] | p | q | r | *p | *q | *r |
|---|---|---|---|---|---|---|---|---|---|---|
| _ | 0 | 1 | 6 | 5 | 2 | 4 | 5 | 6 | 3 | 7 |
| 1+_ | 1 | 2 | 7 | 6 | 3 | 5 | 6 | 7 | 4 | 8 |
| (u8*)_ | 0 | 1 | 6 | 5 | 2 | 4 | 5 | 6 | 3 | 7 |
| *((u8*)_) | ? | ? | 0 | 7 | 2 | 4 | 5 | ? | 5 | ? |
| a[_] | 6 | 5 | 4 | 1 | 3 | 0 | 1 | 4 | 7 | 2 |
| a[1+_] | 5 | 3 | 2 | 4 | 7 | 1 | 4 | 2 | 0 | ? |
| r[_] | 7 | 0 | ? | ? | 1 | 2 | ? | ? | 4 | ? |
| r[3+_] | 4 | 2 | ? | ? | ? | ? | ? | ? | ? | ? |
| ((u8*)_)[0] | ? | ? | 0 | 7 | 6 | 3 | 7 | 0 | 5 | 1 |
| ((u8*)_)[2] | 6 | 5 | 4 | 1 | 3 | 0 | 1 | 4 | 7 | 1 |