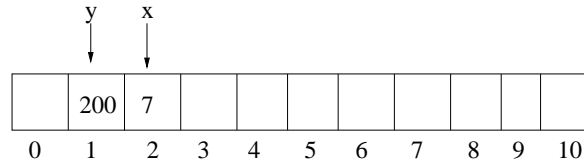


CIS 101 — Quiz 8

Problem 1. Consider the following C++ statements and the memory locations 0 through 10 shown below.

```
int y = 200; int *x; x = 7; *x = 50;
```



1. What is the memory location of y ? 1
2. What is the memory location of x ? 2
3. Update the figure after the last statement is executed. 50 goes into cell number 7.

Problem 2. Write a C++ function called `swap` that takes two integers x and y and swaps their values. So if $x = 10$ and $y = 20$, then after the code `swap(x,y)` is executed $x = 20$ and $y = 10$. The syntax for defining a function is
`<return type> <function name>(<arg1 type> <arg1>, <arg2 type> <arg2>)`

```
void swap(int &x, int &y){
    int z = x;
    x = y;
    y = z;
}
```

Problem 3. Write a C++ function called `mypow` that takes two positive integers x and y and outputs x^y . You are not allowed to use any function in `math.h`. The syntax for a for loop is

```
for (<starting condition>; <ending condition>; <increment>){
    <commands>
}
```

```
int mypow(int x, int y){
    int p = 1;
    for(int i = 0; i < y; i++){
        p = p * x;
    }
    return p;
}
```