

CS 2100: Data Structures

Homework 2

This is a homework you must complete individually. Please use git to submit your solution.

If you wish to hand in a paper copy of problem 1, that is fine, but be sure to get it to me by the due date.

1. (a) Fill in the diagram below to represent the underlying memory configuration that is present after the following commands are executed:

```
int a(22);
int b(38);
int c(a);
int &m(a);
int *y = new int(52);
```

memory contents	memory address
	281
	282
	283
	284
	285
	286
	287
	288
	289
	290

- (b) Now use the diagram below to update the memory configuration from part (a) after the following 5 commands are executed.

```
int *x(&b);
m = 3;
x = y;
int d = (*x) + 2;
a = 6;
```

memory contents	memory address
	281
	282
	283
	284
	285
	286
	287
	288
	289
	290
	291
	292

2. Problem 2 is to design your first class in C++. See details in the ZyBook, and please sit over there.