EE 1910

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Homework 13

1 – Fill in the memory map at the end of the following code 50pts

```
int foo, boo;
int* zoo, soo;
int myArray[6] = {3,4,5};
```
3 4 5 0 0 0

```
foo = myArray[2];
```
foo = 5

```
zoo = &myArray[4];
```
zoo = 0x1010

```
myArray[2] = foo;
```
3 4 5 0 0 0

```
int j;
for(j = 3; j < 5; j++){
   myArray[ j ] = 2 * j % 3;
}
```
3 4 5 0 2 0

```
*zoo = 15;
```
3 4 5 0 15 0

```
myArray[5] = (int)zoo;
```
3 4 5 0 15 0x1010

```
boo = myArray[6];
```
boo = ???

```
myArray[3] = boo;
```
3 4 5 ? 15 0x1010

value	address
3	0x1000
4	0x1004
5	0x1008
??	0x100C
15	0x1010
0x1010	0x1014
??	0x1018
??	0x101C

myArray

2 – Write a single line of code to do each task 20pts

Create an 2D array of ints, named ArrayInt, with 7 columns and 5 rows

```
int ArrayInt[5][7];
```

Create the following array of ints.

```
7  4
3  5
5  6
```

```
int myArray[3][2] = {7,4,3,5,5,6};
```

Create an array of ints that can hold all the values of a 24 hour digital clock that shows hrs, min, sec, where 8AM → 8 and 8pm → 20.

```
int myArray[24][60][60];
```

3 – Given an array with the following values, evaluate each snippit of code 30pts

int myArray[3][4] = {12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1};

```
foo = myArray[2][2];
```

12,11,10,9 [0][0-3] 8,7,6,5 [1][0-3] 4,3,2,1 [2][0-3]

foo = 2

```
foo = myArray[0][1];
```

foo = 11

```
int foo1 = 0;
int foo2 = 0;
int foo3 = 0;

for (j = 0; j < 4;j++){
   foo1 += myArray[0][ j ];
   foo2 += myArray[ j ][0];
   foo3 *= myArray[ j ][ j ];
}
```

0 1 2 3

12 11 10 9 = 42

12 8 4 ? = 24 + ?

0 since foo3 starts at 0

foo1 = 42

foo2 = 24 + ?

foo3 = 0