

Handout 15

Preparing for Exam 2

The second exam has two parts:

- An in-class “paper test”, in which you answer written questions of the following type
 - reading snippets of code to figure out what it does,
 - writing snippets of code to accomplish specific tasks, and
 - writing answers questions about programming concepts.

During the in-class test you will *not* be able to use notes, previous code, etc.

- An at-home coding exam, which you must write a piece of code.

Here are some practice problems.

1. What does the following snippet of code do?

```
int numbers[10];
int k;
for (k=0;k<10;k++)
{
    numbers[k]=10-k;
}
```

2. Suppose a program contains the following line:

```
int values[100];
```

Write a snippet of code that fills this array with zeroes. Be sure to define any variables that you use.

3. Suppose there is a program that puts values in to the following array:

```
double list[10];
```

What does the following snippet of code do?

```

int count = 0;
for (k=0;k<10;k++)
{
if (list[k]>0)
    count++;
}

```

4. Suppose that a program defines an array

```

int values[3];

```

and fills the array with zeroes.

What does the following snippet of code do?

```

int trial;
for (k=1;k<=100;k++)
{
    trial = (int)floor(3*drand48());
    values[trial]++;
}

```

5. Suppose a program contains the following line:

```

double data[10];

```

Write a snippet of code with a `while` loop that fills this array with the numbers

1.0, 1.1, 1.2, 1.3, etc

Be sure to define any variables that you use.

Can you write a `for` loop that accomplishes the same thing?

6. Suppose a program uses an array defined by

```

int inputs[25];

```

and that the array is filled somehow with numbers. Write a snippet of code that compute the average of the numbers stored in this array. Be sure to define any variables that you use.

7. Suppose a program uses an array defined by

```

double inputs[20];

```

and that the array is filled somehow with numbers. Write a snippet of code that finds the spot in the array that holds the largest number. Be sure to define any variables that you use.

8. Write a snippet of code that creates an array containing 100 random integers.