# CSCI 161: Homework #8

*Due: Monday, April 16th @ 11:59PM*

1). What is wrong with the following line of code?
```
Scanner input = new Scanner("test.dat");
```

2). Which of the following is the correct syntax to declare a Scanner to read the file example.txt in the current directory?

```
a. Scanner input = new Scanner("C:\example.txt");
b. Scanner input = new Scanner(new File("example.txt"));
c. File input = new Scanner("/example.txt");
d. Scanner input = new Scanner("C:/example.txt");
```

3). Given the following input, what tokens does a Scanner break the text apart into?
```
in fourteen-hundred 92
columbus sailed the ocean blue :)
```

```
a. "in", "fourteen-hundred", "92"
b. "in", "fourteen-hundred", "92", "columbus", "sailed", "the", "ocean", "blue", ":)"
c. "in", "fourteen-hundred", "92\ncolumbus", "sailed", "the", "ocean", "blue :)"
d. "in fourteen-hundred 92", "columbus sailed the ocean blue :)"
```

4). Which of the following is the correct syntax to declare an array of ten integers?

```
a. int a[10] = new int[10];
b. int[10] a = new int[10];
c. int a[10];
d. int[] a = new int[10];
```

5a). Write an expression to access the first element of an array of integers called numbers.
5b). Write an expression to access the last element of numbers (assuming 10 elements).
5c). What expression can be used to access its last element, regardless of its length?

6). Write code that stores all odd numbers between 6 and 38 into an array using a loop. Make the array's size **exactly** large enough to store the numbers. Then, try generalizing your code so that it will work for any minimum and maximum values, not just –6 and 38.

7). What elements does the array numbers contain after the following code is executed?

```
int[] numbers = new int[8];
numbers[1] = 4;
numbers[4] = 99;
numbers[7] = 2;
int x = numbers[1];
numbers[x] = 44;
numbers[numbers[7]] = 11; // uses numbers[7] as index
```