

--- Self Graded ---

CSE11 – Spring 2013
Quiz #3

Name: _____

Student ID: _____

1) (3 points) What is the definition of a recursive method?

a recursive method is one that calls itself. It must have at least one base case and one recursive case.

2) (3 points) What will the following code print out? What is being calculated?

```
public class ArrayMe
{
    public static void main(String[] args)
    {
        int [] c = {2,4,5};
        double x = 1;
        double y = 0;
        for (int i = 0; i < c.length; i++)
        {
            y += c[i]*x;
            x = x * 2;
        }
        System.out.format("x = %f, y = %f\n", x, y);
    }
}
```

it prints out "x = 8.000000, y=30.000000"

it calculates $5x^2 + 4x + 2$, when $x = 2$

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Quiz #2

3) (6 points) Write a class called `Hundred` that creates a 10x10 (two-dimensional array) of integers and fills the first column with the numbers 1..10, the second column with 11..20, and so on (last column should be 91..100).

Bonus: Print out the matrix with each integer consuming 4 spaces.

```
public class Hundred {
    public static void main (String [] args)
    {
        int[][] matrix = new int[10][10];
        int val = 1;
        for (int j = 0; j < 10; j ++)
            for (int i = 0; i < 10; i ++)
                matrix[i][j] = val++;

        // Print out the matrix
        for (int i = 0; i < 10; i ++)
        {
            String row = new String("");
            for (int j = 0; j < 10; j ++)
                row += ".format("%4d",matrix[i][j]);
            System.out.format("%s\n",row);
        }
    }
}
```