1. Write a small application that reads a list of personalities from a csv file (Firstname, Lastname, date of birth, date of dead) and stores the information in .objects. The application should filter out duplicated entries and output the list of objects to the console in a human readable manner: "Firstname Lastname (dob-dod)". **[2 points]**
2. Write a program called ComputePI to compute the value of π, using the following series expansion. You have to decide on the termination criterion used in the computation (such as the number of terms used or the magnitude of an additional term). Is this series suitable for computing π?

Week I - Homework (PI).png

.NET maintains the value of π in a double constant called Math.PI. Compare the values obtained and the Math.PI. **[2 points]**

1. Write an application that computes the surface and perimeter of geometrical shapes. The application be able obtain an array of shapes, create objects and output the surface and perimeter of those shapes (at least 2 shapes required). **[2 points]**
2. Write a program that prints values from 1 to custom n number, provided as an argument to the application. Print the PRIME keyword near each prime number. (1, 2-PRIME, 3-PRIME, 4, …. , 100). **[2 points]**

Remarks: Run from command line and provide the argument n.

1. The customer contacts a reseller when he wants to buy a new domain. In order to complete the customers wish the reseller contacts a registrar and triggers the create domain process. The registrar knows how to talk to the registry in order to create the customer’s domain. Also the customers must provide some details for the domain they want to create: the name of the domain, owner details and hosts. Use OO techniques to model this problem. **[5 points]**

Provide UML class sequence diagram. You can use Visual Studio for this purpose or other tools like Microsoft Visio or Astah (<http://astah.net/download>). **[1 points]**

1. Create a class called ConnectionManager that manages a fixed array of Connection objects. The client programmer must not be able to explicitly create Connection objects, but can only get them via a static method in ConnectionManager. When the ConnectionManager runs out of objects, it returns a null reference. Test the classes in main(). **[6 points]**