***CSC 229 Programming 100 points***

***Project 03***

**Develop an interactive java program using dialogs for both input and output, name your Java file and Class Project03 to calculate the Mathematical series using an interactive menu. You should display a menu with the following items:**

1. **1 x 2 x 3 x …… x N**
2. **1 + 16 + 81 + ……. + N4**
3. **7 + 49 + 343 + ……. + 7n**
4. **4 [ ]**
5. **Exit**

**Once user selects a number between 1 and 5, prompt the user for the value of N, a positive integer number. If the number entered is anything other than integers between 1 and 6, display an error message and ask user to enter a number between 1 and 6. Repeat the process until 6 is selected, display a message and inform the user that application will be terminated.**

**Design a method called menu to display the menu as shown above. For menu items 1-5, design methods with input argument N that returns the value of formula.**

**Design a separate method to display the results. Result for options 1-3 should be displayed with no fractional part, result for option 4 and 5 should be displayed with 13 digits after decimal point.**

**Submit:**

* **Zip (using Winzip) the Java (.java) and the jar file, name your zip file as “your last name”. Submit the zip file (NOT rar)through BB**
* **Email the java file to** [**seyedt1@southernct.edu**](mailto:seyedt1@southernct.edu)**, title of email should read as “CSC 229 – Project 3 – “your last name”.**

**Sample Run**

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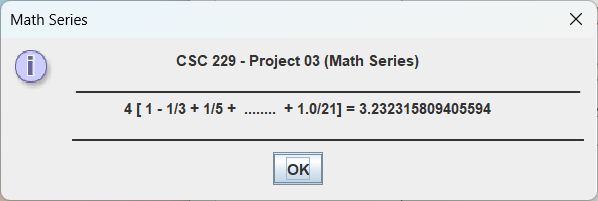
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