

Programming Project 1 – *collaboration permitted*

In Eclipse or Net Beans, create a java application which permits a user to input 2 numbers (num1 and num2) from the console and output to the console the following binary operations:

- sum (num1 + num2)
- difference (num1 – num2)
- product (num1 * num2)
- quotient (num1 / num2)
- exponent (num1^{Num2})
- factorial (num1! + num2!)
- sin(num1) + cos(num2)

Requirements:

1. Two different classes must be created to implement the application (use these names):
 - a. Class **OperationsApp** which contains the main method.
 - b. Class **Operations** which is used to instantiate object(s) and contains the separate methods for each operation.
2. Use double as the type for num1 and num2.
3. Study the Java class Math API for use in your code. View this API at:
<https://docs.oracle.com/javase/8/docs/api/java/lang/Math.html>
4. **Do not code for exceptions.**
5. Submit as e-mail attachments to mheinen_1@msn.com a single MS Word document containing the code for each class. Include (paste) the output from your console at the end of the document to demonstrate your code works.
6. This project is due NLT midnight 10-11-2015.
7. Your code may be run in the classroom and projected to students for inspection / discussion. Be prepared to explain/discuss the logic of your code.