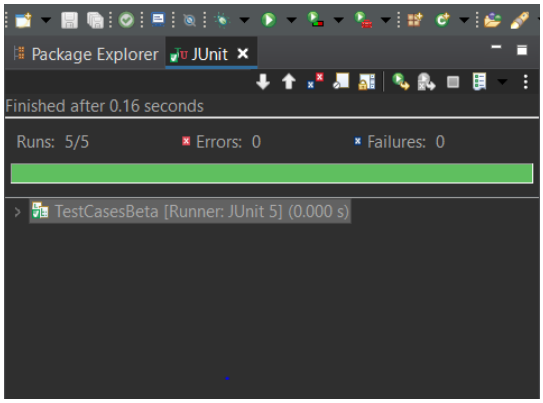
SOEN6011 Project: Problem-5

Function: B(x,y) 40197897-Pal Patel

1 Test Environment Details

- JRE Version - 16.0.2
- JUnit Version - 5
- IDE - Eclipse



2 Test Cases

1. Test Case 1
   - Input to Gamma Function - 4
   - Output expected- 5.836209591345864
   - Output received- 5.836209591345864
   - result:Pass
2. Test Case 2
   - Input to Square Root Function - 289
   - Output expected- 17
   - Output received- 17
   - result:Pass
3. Test Case 3
   - Input to Power Function - (2,3)
   - Output expected- 8
   - Output received- 8
   - result:Pass

4. Test Case 4

   - Input to Factorial Function - 5.0
   - Output expected- 120
   - Output received- 120
   - result:Pass

   Test case 5Input to Gamma Function - -1.5 Output expected- Exception Output received- Exception result:Pass

5.2 Requirements Traceability

1. Requirement 1,2

   Test Cases: testgamma()

   The testgamma functions accepted positive real numbers and computed the gamma values. If the numbers are not real and positive, the gamma gunctions exits the code.

2. Requirement 3,4,5

   Test Cases: testgamma(), calculatepower(), factorial(),

   These testcases correctly compute the subcalculations leading to the correct value for B(x,y).

3. Requirement 7

   Test Cases: factorial()

   The above test cases passes and conclusively has a positive output of the factorial input