Levine, Miles L

CMSC140  9/26/21

Project 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case # | Input | Actual Input | Expected Output | Actual Output | Did the test pass? |
| 1 | 2  4  5 | 2  4  5 | 24  720  17280  1036800  62208000  14  10  9  0  .8 | 24  720  17280  1036800  62208000  14  10  9  0  .8 | Yes |
| 2 | 3  5  6 | 3  5  6 | 36  1080  25920  1555200  93312000  21  15  11  0  .8 | 36  1080  25920  1555200  93312000  21  15  11  0  .8 | Yes |
| 3 | 9  7  3 | 9  7  3 | 108  3240  77760  4665600  279936000  63  45  10  2  2.3 | 108  3240  77760  4665600  279936000  63  45  10  2  2.3 | Yes |
| 4 | 8  27  88 | 8  27  88 | 96  2880  69120  4147200  248832000  56  40  115  0  .3 | 96  2880  69120  4147200  248832000  56  40  115  0  .3 | Yes |

1st and 2nd tests

Text

Description automatically generated

Text

Description automatically generated

3rd and 4th tests

Text

Description automatically generated

Text

Description automatically generated

Pseudocode or Algorithm for the program:

1. Declaring variables: robotName, visitorName, age, wholeNumber1, wholeNumber2, PROGRAMMER\_NAME, PROJECT\_NUMBER, DUE\_DATE, months, days,

hours, minutes, seconds, dogYears, fishYears, result1, result2, ONE\_DOG\_YEAR, and DAYS\_PER\_MONTH to their appropriate data types.

2. Opening cout statements with 2 cin statements to collect the user's name and a single integer.

3. Using aritimetic/multiplication from the first single integer to get the values for variables: months, days, hours, minutes, seconds, dogYears, and fishYears.

4. Displays the values of months, days, hours, minutes, seconds, dogYears, and fishYears through cout statements.

5. Collects 2 whole numbers from the user which are stored into wholeNumber1 and wholeNumber2.

6. Arithmetic where wholeNumber1 and wholeNumber2 are added and stored into result1.

7. Arithmetic where wholeNumber1 and wholeNumber2 are divided and stored into result 2.

8. Declaring variable result3 as a double that equals the value of wholeNumber1 divided by wholeNumber2.

9. Displaying the results of the arithmetic through result1, result2.

10. Setting the precision of the values of wholeNumber1, wholeNumber2, and result3 to 1 decimal place.

11. Displaying result3.

12. Ending cout statements which display PROGRAMMER\_NAME, PROJECT\_NUMBER, and DUE\_DATE.

Lessons Learned

Through this project I feel that I have mastered the basics of c++. I was able to use everything I learned from chapters 1-3 throughout this project.

I learned how to write pseudocode effectively form this project. Every time I would finish a step, I would write it down in the pseudocode, making it easier to understand for myself.

I had difficulty with the setprecision function at first, but I was able to overcome and understand how to use it in my program.

This program helped me to improve my skills in programming by giving me more experience with coding c++.