

You must submit a zipped, **and only zipped**, archive of your homework directory, hw5. The directory shall contain, at a minimum, the files `hw5/src/grade.cc`, `hw5/inc/grade.h`, `hw5/src/rational.cc` and `hw5/inc/rational.h`. Name the archive submission file `hw5.zip`

I will use my own makefile to compile and link to your `hw5/src/grade.cc`, `hw5/inc/grade.h`, `hw5/src/rational.cc` and `hw5/inc/rational.h` files. You must submit, at least, these four files.

Introduction

In this assignment, you will update your Grade class to inherit from a Rational class of your creation. The Rational object will provide an abstraction of a subset of your Grade class' functionality. The Grade class will extend Rational, override some methods, and provide operators for others.

Read the provided header file documentation for instructions on how the methods should work.

Points

Correctness

1. `Rational::Rational`: 0.8 points
2. `Rational::ToDouble`: 0.8 points
3. `Rational::ToString`: 0.8 points
4. `Rational::Equals`: 0.8 points
5. `Rational::DividedBy`: 0.8 points
6. `Rational::Plus`: 0.8 points
7. `Grade::Grade`: 0.8 points
8. `Grade::ToDouble`: 0.8 points
9. `Grade::ToString`: 0.8 points
10. `Grade::operator==`: 0.8 points

Total: 8.0 Points Possible

Base Submission

- compilation of each test (ten tests above): 0.1 points each
- `hw5/src/grade.cc` style: 0.25 points
- `hw5/inc/grade.h` style: 0.25 points
- `hw5/src/rational.cc` style: 0.25 points
- `hw5/inc/rational.h` style: 0.25 points

Total: 2.0 Points Possible

Testing

I have provided you basic test apps which you can use to ensure that your code is, at least partially, correct. I would suggest a more rigorous testing scheme to ensure that your methods handle missing data.

Late assignments will lose 5% per day late, with no assignment being accepted after 3 days (at 15% reduction in points on Monday April 11th 2022).