

Mid-Semester Lab exam
OOAD (CS 212)

1. You need to develop a Fraction Data type in C++ to deal with fractional (rational) numbers. A rational number r is represented as a fraction p/q where p and q are integers, $q > 0$ and p and q are mutually prime ($\gcd(p, q) = 1$). These numbers should support the operations for a Fraction type as defined in the header file **Fraction.h**.

Your class will be tested by the TA using the function defined in **TestFraction.cpp**.

Hence compliance to this function is critical. Your *main()* function should only make a call to **TestFraction()**.

Instructions:

Please read the following instructions carefully:

- You need to write two files.
- The first one defines the functions for the Fraction class in a file **Fraction<yourrollnumber>.cpp**.
- The second one contains the main function (**Main<yourrollnumber>.cpp**).
- In the filenames, the roll number must be in capital letters, e.g. it should be B14CS034, and not in any other format. So your filenames should be **FractionB14CS034.cpp** and **MainB14CS034.cpp**.
- Include appropriate header files.
- Do not modify the **Fraction.h** and **TestFraction.cpp** files. If you make any changes to this file (unless asked to do so), your program will not be evaluated.
- Use proper naming standards for the identifiers.