

COMP 2522 Object oriented programming 1

Assignment 3 **bonus description**

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BCIT CST — **Due Sunday March the 8th at or before 23:59:59**

There's a bonus?

You bet there's a bonus.

We've implemented integer addition, integer subtraction, integer multiplication, and integer division. Do you see a pattern here? We're working with integers. So what can we do with integers that's really, really fun...

For a bonus of up to 10% on Assignment 3, please correctly implement one or both of the following:

1. Add a ModulusOperation which uses the character % to perform Java-style modulo arithmetic.
2. Add an operator @ called the PrimeSumOperator which generates the sum of all the prime numbers between its two operands inclusive. For example:
 - (a) $2\ 7\ @ = 2 + 3 + 5 + 7 = 17$
 - (b) $7\ 2\ @ = 7 + 5 + 3 + 2 = 17$ (order doesn't matter for the @ operator)
 - (c) $1\ 0\ @ = 0$ because there are no prime numbers in the range [0, 1]
 - (d) $2\ 2\ @ = 2$ because 2 is the only prime number in the range [2, 2]
 - (e) $-5\ 5\ @ = 2 + 3 + 5 = 10$ because negative numbers are not prime
 - (f) $-10\ -15\ @ = 0$ because negative numbers are not prime

For full marks, you must also augment the provided unit test file with tests that sufficiently prove your additional operator(s) are implemented.

Good luck, and have fun!