

## BIG Integers

In C++ an int has value in the range 0 to 65535. But what if we need to add larger integers? Say we want compute the sum  $2345566777844567 + 9999988777765768009998$ . Your task in this assignment is to create a class that can make this happen.

### Part 1.

Create a Big Integer class where the integers are internally represented as c-strings.

Your class should have the following:

- the appropriate constructors (default, conversion (from c-strings and int), and copy),
- a destructor
- assignment operator
- arithmetic operators (+, -, \*)

as well as appropriate input and output operations.

### Part 2.

Modify “Part 1” so that:

- You implement division (/) as well as +, -, and \*
- Your Big Integer gets the memory for its internal c-string representation from a memory pool that implements the boundary tag method that we went over in class.
- You need to add operator new(...) and operator delete(...) for your class. These implement allocate and free from boundary tag.