Spreadsheet Specification Memo

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Subject: Specification for spreadsheet interface

This project will be developed with Java 8.0. The deliverable for this assignment will be a zip of the following structure:

```
src
|--> package spreadsheet
    |--> ISpreadsheet.java
    |--> Spreadsheet.java
    |--> Formula.java
```

ISpreadsheet.java is an interface containing two methods with the following signatures:

```
Formula locateCell(int x, int y);
void insertFormula(int x, int y, Formula f);
```

The `locateCell` function should take two positive integers, `x` and `y`, representing the 2d coordinates of the cell in the spreadsheet. It should return a `Formula` (an enumeration of a number, a reference to another cell, addition of two terms, or multiplication of two terms). It should throw an exception if there is no `Formula` at that position.

The `insertFormula` function should take two positive integers, `x` and `y`, representing the 2d coordinates of the cell in the spreadsheet, as well as the `Formula f` to set at that particular index. If there is no `Formula` at this position, it will add the `Formula` there. Otherwise, it will replace the current `Formula`.

Spreadsheet.java is the concrete implementation of ISpreadsheet.java. It contains a constructor to build a new Spreadsheet, taking a rectangular arrangement of `Formula` (2d array) as well as implementations of the methods illustrated above.