Design the basic function of **Excel** and implement the function of the sum formula.

Implement the Excel class:

* Excel(int height, char width) Initializes the object with the height and the width of the sheet. The sheet is an integer matrix mat of size height x width with the row index in the range [1, height] and the column index in the range ['A', width]. All the values should be **zero** initially.
* void set(int row, char column, int val) Changes the value at mat[row][column] to be val.
* int get(int row, char column) Returns the value at mat[row][column].
* int sum(int row, char column, List<String> numbers) Sets the value at mat[row][column] to be the sum of cells represented by numbers and returns the value at mat[row][column]. This sum formula **should exist** until this cell is overlapped by another value or another sum formula. numbers[i] could be on the format:
  + "ColRow" that represents a single cell.
    - For example, "F7" represents the cell mat[7]['F'].
  + "ColRow1:ColRow2" that represents a range of cells. The range will always be a rectangle where "ColRow1" represent the position of the top-left cell, and "ColRow2" represents the position of the bottom-right cell.
    - For example, "B3:F7" represents the cells mat[i][j] for 3 <= i <= 7 and 'B' <= j <= 'F'.

**Note:** You could assume that there will not be any circular sum reference.

* For example, mat[1]['A'] == sum(1, "B") and mat[1]['B'] == sum(1, "A").

**Example 1:**

Input  
["Excel", "set", "sum", "set", "get"]  
[[3, "C"], [1, "A", 2], [3, "C", ["A1", "A1:B2"]], [2, "B", 2], [3, "C"]]  
Output  
[null, null, 4, null, 6]  
  
Explanation  
Excel excel = new Excel(3, "C");  
 // construct a 3\*3 2D array with all zero.  
 // A B C  
 // 1 0 0 0  
 // 2 0 0 0  
 // 3 0 0 0  
excel.set(1, "A", 2);  
 // set mat[1]["A"] to be 2.  
 // A B C  
 // 1 2 0 0  
 // 2 0 0 0  
 // 3 0 0 0  
excel.sum(3, "C", ["A1", "A1:B2"]); // return 4  
 // set mat[3]["C"] to be the sum of value at mat[1]["A"] and the values sum of the rectangle range whose top-left cell is mat[1]["A"] and bottom-right cell is mat[2]["B"].  
 // A B C  
 // 1 2 0 0  
 // 2 0 0 0  
 // 3 0 0 4  
excel.set(2, "B", 2);  
 // set mat[2]["B"] to be 2. Note mat[3]["C"] should also be changed.  
 // A B C  
 // 1 2 0 0  
 // 2 0 2 0  
 // 3 0 0 6  
excel.get(3, "C"); // return 6

**Constraints:**

* 1 <= height <= 26
* 'A' <= width <= 'Z'
* 1 <= row <= height
* 'A' <= column <= width
* -100 <= val <= 100
* 1 <= numbers.length <= 5
* numbers[i] has the format "ColRow" or "ColRow1:ColRow2".
* At most 100 calls will be made to set, get, and sum.