

## 2118. Build the Equation Premium

Hard Topics

SQL Schema > Pandas Schema >

Table: Terms

Column Name	Type
power	int
factor	int

power is the column with unique values for this table.  
Each row of this table contains information about one term of the equation.  
power is an integer in the range [0, 100].  
factor is an integer in the range [-100, 100] and cannot be zero.

You have a very powerful program that can solve any equation of one variable in the world. The equation passed to the program must be formatted as follows:

- The left-hand side (LHS) should contain all the terms.
- The right-hand side (RHS) should be zero.
- Each term of the LHS should follow the format "`<sign><fact>X<pow>`" where:
  - `<sign>` is either "+" or "-".
  - `<fact>` is the **absolute value** of the `factor`.
  - `<pow>` is the value of the `power`.
- If the power is 1, do not add "`<pow>`".
  - For example, if `power = 1` and `factor = 3`, the term will be "+3X".
- If the power is 0, add neither "X" nor "`<pow>`".
  - For example, if `power = 0` and `factor = -3`, the term will be "-3".
- The powers in the LHS should be sorted in **descending order**.

Write a solution to build the equation.

The result format is in the following example.

### Example 1:

**Input:**  
Terms table:

power	factor
2	1
1	-4
0	2

**Output:**

equation
+1X^2-4X+2=0

### Example 2:

**Input:**  
Terms table:

power	factor
4	-4
2	1
1	-1

**Output:**

equation
-4X^4+1X^2-1X=0

**Follow up:** What will be changed in your solution if the power is not a primary key but each power should be unique in the answer?

Seen this question in a real interview before? 1/5

Yes No

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Topics

Database

Discussion (3)