Problem 3 – Survey Parser

Write a JavaScript program that **parses** a given **document** that may contain the results of a **rating survey** and outputs a **summary** of the votes. You will receive a **string** that contains XML-formatted data. From this data, you must extract a **valid label** and **average rating** (sum of ratings, divided by their count). Input, containing valid survey data will follow these rules:

- The document may contain **any symbol before and after** the survey data
- The survey data **always** begins with **<svg>** and ends with **</svg>**:

`Any text`**<svg>**`Survey data`**</svg>**`Any text`

- Each valid survey will contain **exactly two sections** beginning with **<cat>** and ending with **</cat>**
- There may be **whitespace between** the sections

<cat>`Survey heading and label`**</cat><cat>**`Ratings`**</cat>**

- The contents of the first **cat** section must begin with **<text>** and end with **</text>**; it may contain **any text**, but needs to have a **valid label**, inside brackets **[ ]**

<text>`Survey heading`**[**`Survey Label`**]</text>**

- The second **cat** section contains all of the **ratings** with each vote beginning with **<g>** and ending with **</g>**
- A **valid rating** contains a **value** and **count**, with the **value** surrounded by **<val>** and **</val>** and the **count** right **after the value**
- There may be any number of **valid** and **invalid ratings** inside the second cat; you should **only process** the valid ones, and **ignore** the invalid ratings

<g><val>`Rating value`**</val>**`Vote count`**</g>**

  - **Valid** rating: **<g><val>1</val>0</g>**
  - **Invalid** rating (**ignore** and continue): **<g><val>Seafood</val>1</g>**
- The **value** must be a number between **1** and **10**
- The **count** must be a number **0** or larger

If the document **does not** contain survey data (no opening and closing **svg** tags), print on the console "**No survey found**". If there is survey data, but the rest of the rules aren't followed, print on the console "**Invalid format**".

At the **end** of the program, print on the **console** the **label** of the survey and the **average rating**, **rounded** to two decimal places.

Input

You will receive a single **string**, containing a document to be parsed.

Output

Depending on outcome, print on the **console** a single line:

- **No survey found**
- **Invalid format**
- **{label}: {average rating}**

Constraints

- There will never be more than one valid survey
- Rating **value** will be in range **[1…10]**
- Rating **count** will be in range **[1…1 000 000]**

Examples

Input
Some random text <svg><cat><text>How do you rate our food? [Food - General]</text></cat><cat><g><val>1</val>0</g><g><val>2</val>1</g><g><val>3</val>3</g><g><val>4</val>10</g><g><val>5</val>7</g></cat></svg> Some more random text
Output
Food - General: 4.1
Explanation
The survey data is surrounded by **<svg>** and **</svg>**, the remaing data is discarded. The first cat contains our label, surrounded by brackets: Food – General. The second cat contains five ratings, all surrounded with **<g>** and **</g>**, and when parsed we get the following: 0 votes with value 1 = 0 1 votes with value 2 = 2 3 votes with value 3 = 9 10 votes with value 4 = 40 7 votes with value 5 = 35 The sum of all ratings is 86, divided by their count 21 gives us the average rating **4.095…**, which we round to the second decimal – **4.1**.

Input
<svg><cat><text>How do you rate the special menu? [Food - Special]</text></cat><cat><g><val>1</val>5</g><g><val>5</val>13</g><g><val>10</val>22</g></cat></svg>
Output
Food - Special: 7.25

Input
How do you suggest we improve our service? More tacos. It's great, don't mess with it! I'd like to have the option for delivery
Output
No survey found

Input
<svg><cat><text>Which is your favourite meal from our selection?</text></cat><cat><g><val>Fish</val>15</g><g><val>Prawns</val>31</g><g><val>Crab Langoon</val>12</g><g><val>Calamari</val>17</g></cat></svg>
Output
Invalid format