# Paint colors



*Easter holidays are knocking on the door, so you will have to find all possible color combinations that can be used to paint the perfect Easter eggs.*

Write a program that finds colors in a string. You will be given a **single line** **string** containing **substrings** (separated with a **single space**) from which you will be able to form the following colors:

Main colors: **red, yellow, blue**

Secondary colors: **orange, purple, green**

Your task is to take the **first** and **last** substrings and check if you can get some of the above colors. Please have in mind that you can **keep** a secondary color only if the 2 main colors needed for its creation are also available:

* **orange** = red + yellow
* **purple =** red + blue
* **green =** yellow + blue

Since you can find some of the main colors needed to keep a secondary color **after** it is already found, it would be a good idea to keep all the colors and remove the ones you can't keep **at the end**.

If you can form a color **remove both** substrings from the originally received string, otherwise you should **remove the last character** of **each** of them and **return** them in the **middle** of the **original string**.

At the end print out the list with colors found from the given string.

### Input

* Single line **string**

### Output

* The **list** with the collected colors

### Constrains

* You will not receive an empty string
* Please consider only the colors mentioned above
* There won't be any cases with repeating colors

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| d yel blu e low redd | ['yellow', 'blue', 'red'] |
| **Comment** | |
| First we take "**d"** and "**redd"**. After combining those substrings we don't get any of the needed colors, so we remove the last characters from both substrings and return them in the middle of the original string and it becomes "**yel blu red e low"**.  After that we take "**yel"** and "**low"** so the first color we add in our list is yellow and the string we are searching in looks as follows: "**blu red e"**  Then we take "**blu"** and "**e"** and since this color is one of the searched ones (blue) we add it to our collection and the state of the string is now "**red"**.  We should take the last substring and check if it matches some of the colors and since it does we add it (red) in our colors collection.  Finally we print all the colors found: yellow, blue and red in the format shown above. | |
| **Input** | **Output** |
| r ue nge ora bl ed | ['red', 'blue'] |
| **Comment** | |
| We don't keep orange because we don't have yellow in the final list with colors (combining red and yellow gives us orange). | |
| **Input** | **Output** |
| re ple blu pop e pur d | ['red', 'purple', 'blue'] |