

# Exercise: Syntax, Functions and Statements

Problems for in-class lab for the ["JavaScript Advanced" course @ SoftUni](https://judge.softuni.org/Contests/2750/Exercise-Syntax-Functions-and-Statements). Submit your solutions in the SoftUni judge system at <https://judge.softuni.org/Contests/2750/Exercise-Syntax-Functions-and-Statements>

## 1. Fruit

Write a function that calculates how much money you need to buy fruit. You will receive a **string** for the type of fruit you want to buy, a **number** for weight in grams and another **number** for the price per kilogram.

Print the following text on the console:

`'I need ${money} to buy {weight} kilograms {fruit}.'`

Print the weight and the money **rounded** to two decimal places.

The **input** comes as **three arguments** passed to your function.

The **output** should be printed on the console.

### Examples

Input	Output
'orange', 2500, 1.80	I need \$4.50 to buy 2.50 kilograms orange.

Input	Output
'apple', 1563, 2.35	I need \$3.67 to buy 1.56 kilograms apple.

## 2. Greatest Common Divisor - GCD

Write a function that takes **two positive numbers** as input and compute the greatest common divisor.

The **input** comes as **two positive integer numbers**.

The **output** should be printed on the console.

### Examples

Input	Output
15, 5	5

Input	Output
2154, 458	2

## 3. Same Numbers

Write a function that takes **an integer number** as an input and check if all the digits in a given number are the same or not.

Print on the console **true** if all numbers are same and **false** if not. On the next line print the **sum of all digits**.

The **input** comes as an integer number.

The **output** should be printed on the console.

## Examples

Input	Output
2222222	true 14

Input	Output
1234	false 10

## 4. Time to Walk

Write a function that **calculates** how long it takes a student to get to university.

The function takes **three numbers**:

- The **first** is the number of **steps** the student takes from their home to the university
- The **second** number is the length of the student's footprint in **meters**
- The **third** number is the student speed in **km/h**

Every 500 meters the student rests and takes a **1 minute break**.

Calculate how long the student walks from home to university and print on the console the result in the following format: **'hours:minutes:seconds'**.

The **input** comes as **three numbers**.

The **output** should be printed on the console.

## Examples

Input	Output
4000, 0.60, 5	00:32:48

Input	Output
2564, 0.70, 5.5	00:22:35

## 5. Road Radar

Write a function that determines whether a driver is within the speed limit. You will receive the speed and the area. Each area has a different limit:

- On the **motorway** the limit is **130 km/h**
- On the **interstate** the limit is **90 km/h**
- In the **city** the limit is **50 km/h**
- Within a **residential** area the limit is **20 km/h**

If the driver is **within the limits**, there should be printed speed and the speed limit.

**`Driving {speed} km/h in a {speed limit} zone`**

If the driver is **over the limit**, however, your function should print the severity of the infraction and the difference in speeds.

**`The speed is {difference} km/h faster than the allowed speed of {speed limit} - {status}`**

For speeding up to **20 km/h** over the limit, **speeding** should be printed

For speeding up to **40** km/h over the limit, **excessive speeding** should be printed

For anything else, **reckless driving** should be printed

The **input** comes as **2 string parameters**. The first element is the current speed (**number**), the second element is the area.

The **output** should be printed on the console.

## Examples

Input	Output
40, 'city'	Driving 40 km/h in a 50 zone
21, 'residential'	The speed is 1 km/h faster than the allowed speed of 20 - speeding
120, 'interstate'	The speed is 30 km/h faster than the allowed speed of 90 - excessive speeding
200, 'motorway'	The speed is 70 km/h faster than the allowed speed of 130 - reckless driving

## 6. Cooking by Numbers

Write a program that receives 6 parameters which are a **number** and a **list** of five operations. Perform the operations **sequentially** by starting with the **input number** and using the result of every operation as starting point for the next one. Print the result of every operation in order. The operations can be one of the following:

- **chop** - divide the number by two
- **dice** - square root of number
- **spice** - add 1 to number
- **bake** - multiply number by 3
- **fillet** - subtract 20% from number

The **input** comes as **6 string elements**. The first element is the starting point and must be **parsed** to a number. The remaining 5 elements are the names of the operations to be performed.

The **output** should be printed on the console.

## Examples

Input	Output
'32', 'chop', 'chop', 'chop', 'chop', 'chop'	16 8 4 2 1

Input	Output
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'9', 'dice', 'spice', 'chop', 'bake', 'fillet'	3 4 2 6 4.8
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## 7. Validity Checker

Write a program that receives total of 4 parameters in the format **x1, y1, x2, y2**. Check if the distance between each point and the start of the cartesian coordinate system (0, 0) is **valid**. A distance between two points is considered **valid**, if it is an **integer value**.

In case a distance is valid, print "{x1, y1} to {x2, y2} is valid"

If the distance is invalid, print "{x1, y1} to {x2, y2} is invalid"

The order of comparisons should always be first {x1, y1} to {0, 0}, then {x2, y2} to {0, 0} and finally {x1, y1} to {x2, y2}.

The **input** consists of two points given as **4 numbers**.

For each comparison print either "{x1, y1} to {x2, y2} is valid" if the distance is valid, or "{x1, y1} to {x2, y2} is invalid" if it is invalid.

### Examples

Input	Output
3, 0, 0, 4	{3, 0} to {0, 0} is valid {0, 4} to {0, 0} is valid {3, 0} to {0, 4} is valid
2, 1, 1, 1	{2, 1} to {0, 0} is invalid {1, 1} to {0, 0} is invalid {2, 1} to {1, 1} is valid

## 8. \*Words Uppercase

Write a program that **extracts all words** from a passed in string and converts them to **upper case**. The extracted words in upper case must be printed on a single line separated by ", ".

The **input** comes as a single string argument - the text to extract and convert words from.

The **output** should be a single line containing the converted string.

### Examples

Input	Output	Input	Output
'Hi, how are you?'	HI, HOW, ARE, YOU	'hello'	HELLO

## Hints

- You may need to use a [Regular Expression](#) or alternatively check for all delimiters that can be found in a sentence (ex. ",", " ", "!", "?", and so on).