Exercise: JS Basics

Exercise problems for the ["Back-End Technologies Basics"](#) Course @ SoftUni.
You can check your solutions in [Judge](#).

1. Ages

Write a function that **determines** whether based on the given **age** a person is: **baby**, **child**, **teenager**, **adult**, **elder**.

The input will come as a single argument, and you need to **convert the input to an integer** before checking the age boundaries. The age boundaries are:

- **0-2** – **baby**;
- **3-13** – **child**;
- **14-19** – **teenager**;
- **20-65** – **adult**;
- **>=66** – **elder**;
- In all other cases print **–** "**out of bounds**".

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

Examples

Input	Output
20	adult
1	baby
100	elder
-1	out of bounds

2. Vacation

You are given an array where:

- The first element is the **number of people** in the group (an integer).
- The second element is the **type of group** (a string: either "Students", "Business", or "Regular").
- The third and last element is the **day of the week** they are going to stay (a string: either "Friday", "Saturday", or "Sunday").

Based on that information, **calculate** how much they have to pay and **print** that price on the console. Use the table below. In each cell is the price for a **single person**.

The output should look like that: "**Total price: {price}**".

The **price** should be **formatted** to the **second** decimal point.

	Friday	Saturday	Sunday
Students	8.45	9.80	10.46
Business	10.90	15.60	16
Regular	15	20	22.50

There are also **discounts** based on some conditions:

- **Students** – if the group is bigger than or equal to **30** people, you should reduce the **total** price by **15%;**

- **Business** – if the group is bigger than or equal to **100** people, **10** of them can stay **for free;**

- **Regular** – if the group is bigger than or equal to **10 and less than or equal to 20,** reduce the total price by **5%**.

Note: You should reduce the prices in that EXACT order.

Examples

Input	Output
30, "Students", "Sunday"	Total price: 266.73
40, "Regular", "Saturday"	Total price: 800.00

3. Leap Year

Write a function to check whether a **year** is a **leap**. Leap years are either **divisible** by **4**, but not by **100,** or are divisible by **400**. The **output** should be following:

- If the year is a leap, print: **yes**

- Otherwise, print: **no**

Examples

Input	Output
1984	yes
2003	no
4	yes

4.Print and Sum

Write a function that takes an array with two elements as input:

- The first element is the **start number** (an integer).

- The second element is the **end number** (an integer).

The function should display **all numbers from the start to the end (inclusive)**, **followed by the sum of those numbers**. **Print** the result like the examples below:

Examples

Input	Output
5, 10	5 6 7 8 9 10 Sum: 45
0, 26	0 1 2 … 26 Sum: 351
50, 60	50 51 52 53 54 55 56 57 58 59 60 Sum: 605

5. Multiplication Table

You will receive a **number** as a parameter. Print the **10 times table** for this **number**. See the examples below for more information.

Output

Print every row of the table in the following format:

`{number} X {times} = {product}`

Constraints

- The number will be an **integer** will be in the interval **[1…100].**

Examples

Input	Output	Input	Output
5	5 X 1 = 5 5 X 2 = 10 5 X 3 = 15 5 X 4 = 20 5 X 5 = 25 5 X 6 = 30 5 X 7 = 35 5 X 8 = 40 5 X 9 = 45 5 X 10 = 50	2	2 X 1 = 2 2 X 2 = 4 2 X 3 = 6 2 X 4 = 8 2 X 5 = 10 2 X 6 = 12 2 X 7 = 14 2 X 8 = 16 2 X 9 = 18 2 X 10 = 20

6. Sum Digits

Write a **function**, which will be given a single **number**. Your task is to find the **sum** of its digits.

Examples

Input	Output
245678	32
97561	28
543	12

7. Reversed Chars

Write a program that takes an array with **3 elements** (characters) and prints them in **reversed order** with a space between them.

Examples

Input	Output
'A', 'B', 'C'	C B A
'1', 'L', '&'	& L 1

8. Fruit

Write a function that takes an array with three elements:

* The first element is a **string representing the type of fruit**.
* The second element **is a number representing the weight in grams**.
* The third element is a **number representing 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.

Follow us:

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

9. 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 the 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

10. 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 a 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, the **status** should be **speeding**.

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

For anything else, **status** should be **reckless driving**.

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

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 |

11. 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 a 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 a number
- **spice** – add 1 to the number
- **bake** – multiply number by 3
- **fillet** – subtract 20% from the number

The **input** comes as an array of **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
'9', 'dice', 'spice', 'chop', 'bake', 'fillet'	3 4 2 6 4.8