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Functions -Exercises

1. Smallest of Three Numbers

Write a JS function which receive **three integer** numbers to print the **smallest** of the three integer numbers. Use appropriate name for the function.

Examples

Input	Output
2, **5,** **3**	2
600, **342,** **123**	123
25, **21,** **4**	4

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2. Add and Subtract

You will receive 3 **integers.** Write a JS function **sum** to get the sum of the first two integers and **subtract** function that subtracts the third integer from the result from the Sum function.

Examples

Input	Output
23, **6,** **10**	19
1, **17,** **30**	-12
42, **58,** **100**	0

3. Characters in Range

Write a JS function that receives **two characters** and prints on a single line all the characters in between them according to the **ASCII** code.

Examples

Input	Output
'a', **'d'**	b c
'#', **':'**	$ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9
'C', **'#'**	$ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B

4. Odd and Even Sum

You will receive a **single number.**
You have to write a JS function, that returns the **sum** of **all even** and **all odds** digits from that number.

Examples

Input	Output
1000435	Odd sum = 9, Even sum = 4
34958921372592 34	Odd sum = 54, Even sum = 22

5. Palindrome Numbers

A palindrome is a number which reads the same **backward as forward**, such as 323 or 1001. Write a JS function which receives an **array of positive integer** and checks if each integer is a palindrome or not.

Write isPalindrome function.

Input	Output		Input	Output
[123,323,421,121]	false true false true		[32,2,232,1010]	false true true false

6. Password Validator

Write a JS function that checks if a given password is valid. Password rules are:

- **6 – 10 characters (inclusive)**
- **Consists only of letters and digits**
- **Have at least 2 digits**

If a password is valid print "Password is valid". If it is not valid, for every unfulfilled rule print a message:

- **"Password must be between 6 and 10 characters"**
- **"Password must consist only of letters and digits"**
- **"Password must have at least 2 digits"**

Write a function for each rule.

Input	Output
'pass'	Password must be between 6 and 10 characters Password must have at least 2 digits
'APass123'	Password is valid
'Pass'	Password must consist only of letters and digits Password must have at least 2 digits

7. Shortest and Longest Word

You will receive a **single string.** This string will be a sentence. Your task here is to create JS function to find:

The **longest** and the **shortest** word in that sentence. If two words have **equal length** take the first occurrence.

Examples

Input	Output
'Hello how are you today? I hope you are fine '	Longest -> Hello Shortest -> I
'Lorem Ipsum is dummy text of the typesetting industry.'	Longest -> typesetting Shortest -> is

8. Perfect Number

Write a JS function that receive a **number** and return if this number is perfect or not.

A perfect number is a positive integer that is equal to the **sum of its proper positive divisors**. That is the sum of its positive divisors excluding the number itself (also known as its **aliquot sum**).

Equivalently, a perfect number is a number that is **half the sum** of all of its positive divisors (including itself) => 6 is a perfect number, because it is the sum of 1 + 2 + 3 (all of which are divided without remainder).

Examples

Input	Output
6	Perfect number! 1 + 2 + 3

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28	Perfect number! 1 + 2 + 4 + 7 + 14
12364 98	It's not so perfect.

9. Progress Bar

You will receive a **single number** between 0 and 100 which is divided with 10 without residue (0, 10, 20, 30...).

Your task is to create a JS function that visualize a **loading bar** depending on that number you have received in the input. See examples for more clarity.

Examples

Input	Output
30	30% [%%%.....] Loading...
50	50% [%%%%%.....] Loading...
100	[%%%%%%%%%%] Complete!

10. Factorial Division

Write a JS Function that reaceives **two** integer numbers. Calculate factorial of each number. Divide the first result by the second and print the division formatted to the **second decimal** point.

Examples

Input	Output		Input	Output

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5 **2**	60.00		6 2	360.00

Hints

Try to use recursion