Exercises: Methods

Problems for exercises and homework for the "Programming Fundamentals" course @ SoftUni.

You can check your solutions in Judge.

1. Smallest of Three Numbers

Write a method to print the smallest of three integer numbers. Use an appropriate name for the method.

Examples

Input	Output
2 5 3	2
600 342 123	123
25 -21 4	-21

2. Vowels Count

Write a method that receives a single string and prints the count of the vowels. Use an appropriate name for the method.

Examples

Input	Output
SoftUni	3
Cats	1
JS	0

3. Characters in Range

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

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

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4. Password Validator

Write a program 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"**

Examples

Input	Output
logIn	Password must be between 6 and 10 characters Password must have at least 2 digits
MyPass123	Password is valid
Pass	Password must consist only of letters and digits Password must have at least 2 digits

Hints

Write a method for each rule.

5. Add and Subtract

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

Examples

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

6. Middle Characters

You will receive a single string. Write a method that prints the middle character. If the length of the string is even, there are two middle characters.

Examples

Input	Output
aString	r
someText	eT
3245	24

7. NxN Matrix

Write a method that receives a single integer **n** and prints an **nxn** matrix with that number.

Examples

Input	Output
3	3 3 3 3 3 3 3 3 3
7	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
2	2 2 2 2

8. Factorial Division

Read two integer numbers. Calculate the factorial of each number. Divide the first result by the second and print the division formatted to the second decimal point.

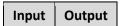## Examples

Input	Output
5 2	60.00

Input	Output
6 2	360.00

9. Palindrome Integers

A **palindrome** is a number that reads the same backward as forward, such as 323 or 1001. Write a program that reads a positive integer number until you receive "**END**". For each numbered print, whether the number is palindrome or not.

Examples

Input	Output

Input	Output

123	false	32	false	
323	true	2	true	
421	false	232	true	
121	true	1010	false	
END		END		

10. Top Number

Read an **integer** n from the console. Find all top numbers in the range **[1 … n]** and print them. A top number holds the following properties:

- Its **sum of digits is divisible by 8**, e.g. 8, 16, 88.
- Holds at least **one odd digit**, e.g. 232, 707, 87578.

Examples

Input	Output
50	17
	35

Input	Output
100	17
	35
	53
	71
	79
	97