Lab: Methods

Test your tasks in the Judge system: https://judge.softuni.org/Contests/4417

1. Sign of Integer Number

Write a program that:

- Reads an integer number N from the console
- Create a method that prints the **sign** of an entered number **N**:
- Print:
 - If the number is positive (N > 0): "The number {number} is positive."
 - If the number is negative (N < 0): "The number {number} is negative."
 - If the number is zero (N = 0): "The number {number} is zero."

Example

Input	Output
2	The number 2 is positive.

Input	Output
-5	The number -5 is negative.

Input	Output
0	The number 0 is zero.

2. Grades

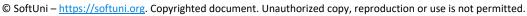
Write a program that:

- Reads a grade (floating-point number) from the console
- Create a method that receives a grade between 2.00 and 6.00
- Prints the corresponding grade in words
 - "Fail" If the grade is in range 2.00 2.99 (inclusively)
 - o "Average" If the grade is in range 3.00 3.49 (inclusively)
 - "Good" If the grade is in range 3.50 4.49 (inclusively)
 - "Very good" If the grade is in range 4.50 5.49 (inclusively)
 - "Excellent" If the grade is in range 5.50 6.00 (inclusively)

Example



















3.33 Average	4.50	Very good		2.99	Fail
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Input	Output	Input	Output	Input	Output
5.70	Excellent	3.70	Good	2.00	Fail

3. Printing Triangle

Write a program that:

- Reads an integer number N from the console
- Create a method for printing triangle depending on value of the number N

Example

Input	Output	Input
3	1	4
	1 2 1 2 3	
	1 2 3	
	1 2	
	1	

Input		Output			
4	1				
		2			
	1	2	3		
	1	2	3	4	
	1	2	3		
	1	2			
	1				

Input	Output
2	1
	1 2
	1

4. Calculate Rectangle Area

Write a program that:

- Reads two integer numbers from the console: width and length
- Create a method which returns rectangle area with given width and length

Hint: Rectangle area can be calculated when you multiply width and length of the rectangle.

Example

Input	Output
3	12
4	

Input	Output
6	48
8	

Input	Output
5	50
10	

Input	Output
8	56
7	

Input	Output
3	21
7	

Input	Output
2	16
8	

5. Repeat String

Write a program that:















- Reads a text (string) and repeat count (integer number) from the console
- Write a method that receives a string and a repeat count
- The method should return a new string, containing the initial one, repeated count times without space

Example

Input	Output
abc	abcabcabc
3	

Input	Output
String 2	StringString

Input	Output
Re	ReReRe
3	

6. Math Power

Write a program that:

- Reads two integer numbers from the console: base number and power
- Create a method, which receives two numbers as parameters:
 - o The first number the base
 - The second number the **power**
- The method should return the **base** raised to the given **power**

Example

Input	Output
3	81
4	

Input	Output
2	256
8	

Input	Output
4	16
2	

7. Greater of Two Values

Write a program that:

- Reads a type (string) and two values of this type from the console
- Entered type can be one of the following values: "int", "char" or "string"
- Create methods which can compare int, char or string
- Return the biggest of the two values

Example

Input	Output
int	16
2	
16	

Input	Output
char	Z
а	
Z	

Input	Output
string	bbb
aaa	
bbb	













8. Multiply Evens by Odds

Write a program that multiplies the sum of all even digits of a number by the sum of all odd digits of the same number:

- Read an integer number from the console
- Create a method called **GetMultipleOfEvenAndOdds()**
- Create a method GetSumOfEvenDigits()
- Create GetSumOfOddDigits()
- You may need to use Math.Abs() for negative numbers

Example

Input	Output	Comment
-12345	54	Evens: 2 4
		Odds: 1 3 5
		Even sum: 6
		Odd sum: 9
		6 * 9 = 54

Input	Output	Comment
3453466	220	Evens: 4 4 6 6
		Odds: 3 5 3
		Even sum: 20
		Odd sum: 11
		20 * 11 = 220

9. Orders

Write a program that:

- Reads a string on the first line from the console, representing a product "coffee", "water", "coke" or "snacks"
- Reads an integer on the second line from the console, representing the quantity of the
- Create a method that calculates and prints the total price of an order
- The method should receive two parameters: product and quantity
- The prices for a single item of each product are:
 - √ coffee 1.50
 - √ water 1.00
 - √ coke 1.40
 - √ snacks 2.00
- Print the result, formatted to the second digit













Example

Input	Output
water	5.00
5	

Input	Output
coffee	3.00
2	

Input	Output
snacks	12.00
6	



