More Exercises: Data Types and Variables

Problems for exercise and homework for the "JS Fundamentals" Course @ SoftUni.
Submit your solutions in the SoftUni judge system at: https://judge.softuni.org/Contests/1269

1. Digits with Words

Write a **function** that receives a **digit** in the form of a **word** (as a **string)** and prints the **`digit`** (as a **number)**.

Examples

Input	Output
`'nine'`	`9`
`'two'`	`2`
`'zero'`	`0`

Hints

Use a **`switch`** case.

2. Prime Number Checker

Write a **function** to check if a number is **`prime`** (only divisible by itself and one).

The **input** comes as a single number argument.

The **output** should be the return value of your function. Return **`true`** for prime number and **`false`** otherwise.

Examples

Input	Output
`7`	`true`
`8`	`false`
`81`	`false`

Hints

You can find more information about prime numbers: https://en.wikipedia.org/wiki/Prime_number

3. Cone

Write a **function** to calculate a cone's **volume** and **total surface area** by given height and radius of the base.

The **input** comes as two number arguments. The first element is the cone's **`radius`** and the second is its **`height`**.

The **output** should be printed to the console on a **new line** for every result. The result should be formatted to the **fourth decimal point.**

Examples

Input	Output
3, 5	volume = 47.1239 area = 83.2298
3.3, 7.8	volume = 88.9511 area = 122.0159

Hints

You can use this online tool to check your results: http://www.calculatorsoup.com/calculators/geometry-solids/cone.php

4. Biggest of 3 Numbers

Write a **function** that finds the **biggest number**.

The **input** comes as 3 parameters.

The **output** is the **biggest** of the input numbers.

Examples

Input	Output
-2, 7, 3	7
130, 5, 99	130
43, 43.2, 43.1	43.2
2, 2, 2	2

5. Binary to Decimal

Write a **function** that reads an 8-bit binary number and converts it to a decimal.

The **input** comes as one string element, representing a binary number.

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

Examples

Input	Output
00001001	9
11110000	240

6. Chess Board

Write a **function** to print a chessboard of size **n X n**. See the example for more information.

The **input** comes as a single number argument **n**.

The **output** should be returned as a result of your function in the form of a string.

Examples

Input	Output

3	`<div class="chessboard">`
	`  <div>`
	`  <span class="black"></span>`
	`  <span class="white"></span>`
	`  <span class="black"></span>`
	`  </div>`
	`  <div>`
	`  <span class="white"></span>`
	`  <span class="black"></span>`
	`  <span class="white"></span>`
	`  </div>`
	`  <div>`
	`  <span class="black"></span>`
	`  <span class="white"></span>`
	`  <span class="black"></span>`
	`  </div>`
	`</div>`

7. Triangle Area

Write a **function** that calculates a **triangle's area** by its 3 sides.

The **input** comes as three number arguments, representing one **side** of a triangle.

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

Examples

Input	Output
2, 3.5, 4	3.4994419197923547
3 5.5 4	5.854685623498498

Hints

- Use Heron's formula to obtain the result.