

# Series N°8: Function file in MATLAB



## Excercise N°1

Write a function in MATLAB, named sol that would calculate the roots of the equation of second order  $ax^2 + bx + c = 0 \Rightarrow \Delta = b^2 - 4ac$ , where  $\Delta$  can have three choices or possibilities. Excercise N°2

Write a function in MATLAB, named addi that would calculate the sum s of three given values or numbers a,b and c.

Similarly, in case a,b and c vectors are it possible to sum them with the same program?

finally, in case a,b and c matrices are it possible to sum them with the same program?

## Excercise N°3

Write a function in MATLAB, named sub that would calculate the subtraction s of three given values or numbers a,b and c.

Similarly, in case a, b and c vectors are it possible to subtraction them with the same program?

finally, in case a, b and c matrices are it possible to subtraction them with the same program?

## Excercise N°4

Write a function in MATLAB, that would calculate the cosine and sine and tangent of any given x and y. Where  $\Rightarrow f(x, y) = e^x (4x^2 + 2y^2 + 4xy + 2y + 1)$ 

## Excercise N°5

Write a function in MATLAB, that would calculate  $V = \frac{4}{3}\pi R^3$ , where  $R \in \begin{bmatrix} 1 & 20 \end{bmatrix}$  using for-end loop



# Excercise N°6

Write a function in MATLAB, that would calculate  $f = \sin(x)$ ,  $g = \cos(x)$  and  $h = \sqrt[3]{2x}$  where  $x \in \begin{bmatrix} 1 & 200 \end{bmatrix}$  using for-end loop

#### Excercise N°7

Write a function in MATLAB, that would calculate  $f(x) = x^2 + 15x - 8$  where  $x \in \begin{bmatrix} 1 & 200 \end{bmatrix}$  using for-end loop

#### Excercise N°8

Write a function in MATLAB, that would calculate the cosine and sine and tangent of any given x and y. Where  $\Rightarrow f(x, y) = e^x (4x^2 + 2y^2 + 4xy + 2y + 1)$ 

#### Excercise N°9

Write a function in MATLAB, that would calculate  $V = \frac{4}{3}\pi R^3$ , where  $R \in [1 \ 20]$  using while-end

loop

#### Excercise N°10

Write a function in MATLAB, that would calculate  $f = \sin(x)$ ,  $g = \cos(x)$  and  $h = \sqrt[3]{2x}$  where  $x \in \begin{bmatrix} 1 & 200 \end{bmatrix}$  using while-end loop

#### Excercise N°11

Write a function in MATLAB, that would calculate  $f(x) = x^2 + 15x - 8$  where  $x \in \begin{bmatrix} 1 & 200 \end{bmatrix}$  using while-end loop