Mohamed Khider University Biskra, Algeria
Faculty of Architecture, Urbanism, Civil Engineering and Hydraulics
Department of Civil Engineering and Hydraulic
2nd Year Civil Engineering / Hydraulics / Public Works

Test N°9: Function file in MATLAB

Exercise 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 Δ can have three choices or possibilities.

Exercise 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?

Exercise 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?

Exercise N°4

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

Exercise N°5

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

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Dr. Djerouni S

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Exercise 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

Exercise 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

Exercise N°8

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

Exercise N°9

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 while-end loop

Exercise 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

Exercise 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