



UNIVERSITY OF JORDAN

CHEMICAL ENGINEERING DEPARTMENT

0905201- COMPUTER APPLICATION IN CHEMICAL ENGINEERING

SECTION 1

10/16

Name: محمّد عليّ العبدالله

Reg. No. 0143604

Write a script file that computes the volume of a box with height of (H), and length of (L), and width of (W). These dimensions are entered by the user.

Code  
~~S = input('h')~~  
~~N = input('L')~~  
~~g = input('w')~~  
~~volume = h \* L \* w~~

S = input('h')  
n = input('L')  
g = input('w')  
Volumess S \* n \* g



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7  
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Name: فيروز خالد محمد عيسى

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### Question 1

Suppose  $x$  takes on the values  $x = 1, 1.2, 1.4, \dots, 5$ . Use MATLAB to compute the array  $y$  that results from the function  $y = 7 \sin(4x)$ . Use MATLAB to determine how many elements are in the array  $y$  and the value of the third element in the array  $y$ .

Code	Result
<pre>&gt;&gt; X = [1:0.2:5] ✓ &gt;&gt; Y = 7 * sin(4 * X) ✓ &gt;&gt; Z = length(Y) ✓ find</pre>	<pre>Z = 21 ✓ -4.4189 ✓</pre>

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### Question 2

Using MATLAB, find the roots of  $13x^3 + 182x^2 - 184x + 2503 = 0$

Code	Result
<pre>a = [13, 182, -184, 2503] ✓ roots(a)</pre>	<pre>-7.000 + 11.980753i -7.000 - 11.980753i</pre>

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Use MATLAB to compute:

$$\int_0^{\pi} \sin(x+2) dx$$

Code	Result
<pre>function m = sinn(x)     m = sin(x+2) endfunction  &gt; quad('sinn', 0, pi)  ans =     -0.8323</pre>	<p><del>not</del></p> <p>ans = -0.8232</p>