Octave/Matlab Tutorial

Quiz, 5 questions

5/5 points (100%)

✓ Congratulations! You passed!

Next Item



1/1 points

1.

Suppose I first execute the following Octave/Matlab commands:

Which of the following are then valid commands? Check all that apply. (Hint: A' denotes the transpose of A.)



1/1 points

2

Let
$$A = egin{bmatrix} 16 & 2 & 3 & 13 \ 5 & 11 & 10 & 8 \ 9 & 7 & 6 & 12 \ 4 & 14 & 15 & 1 \ \end{bmatrix}.$$

Which of the following indexing expressions gives $B=\begin{bmatrix}16&2\\5&11\\9&7\\4&14\end{bmatrix}$? Check all that apply.



5/5 points (100%)

Let A be a 10x10 matrix and x be a 10-element vector. Your friend wants to compute the product Ax and writes the following code:

```
1  v = zeros(10, 1);
2  for i = 1:10
3   for j = 1:10
4    v(i) = v(i) + A(i, j) * x(j);
5   end
6  end
```

How would you vectorize this code to run without any for loops? Check all that apply.



1/1 points

4.

Say you have two column vectors v and w, each with 7 elements (i.e., they have dimensions 7x1). Consider the following code:

```
1 z = 0;
2 for i = 1:7
3 z = z + v(i) * w(i)
4 end
```

Which of the following vectorizations correctly compute z? Check all that apply.



1/1 points

5.