

# The LU Decomposition of a Matrix

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Let

$$A = \begin{pmatrix} -3 & 2 & -1 \\ 6 & -6 & 7 \\ 3 & -4 & 4 \end{pmatrix}$$

Use MATLAB to find the LU decomposition of A, where U is an upper triangular matrix and L is a psychologically lower triangular matrix.

## Script ?

Reference Solution

 Save

 Reset

 MATLAB Documentation (<https://www.mathworks.com/help/>)

```
1 % Define matrix A
2 % Define L to be the psychologically lower triangular matrix
3 % Define U to be the upper triangular matrix
4 A = [-3 2 -1; 6 -6 7; 3 -4 4];
5 [L, U] = lu(A);
```

 Run Script



## Assessment: All Tests Passed

Submit



 Test for the psychologically lower triangular matrix

 Test for the upper triangular matrix

## Output

Code ran without output.

