

# MATLAB - CONCATENATING MATRICES

[http://www.tutorialspoint.com/matlab/matlab\\_matrix\\_concatenation.htm](http://www.tutorialspoint.com/matlab/matlab_matrix_concatenation.htm)

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You can concatenate two matrices to create a larger matrix. The pair of square brackets '['] is the concatenation operator.

MATLAB allows two types of concatenations –

- Horizontal concatenation
- Vertical concatenation

When you concatenate two matrices by separating those using commas, they are just appended horizontally. It is called horizontal concatenation.

Alternatively, if you concatenate two matrices by separating those using semicolons, they are appended vertically. It is called vertical concatenation.

## Example

Create a script file with the following code –

```
a = [ 10 12 23 ; 14 8 6; 27 8 9]
b = [ 12 31 45 ; 8 0 -9; 45 2 11]
c = [a, b]
d = [a; b]
```

When you run the file, it displays the following result –

```
a =
    10     12     23
    14      8      6
    27      8      9
b =
    12     31     45
     8      0     -9
    45      2     11
c =
    10     12     23     12     31     45
    14      8      6      8      0     -9
    27      8      9     45      2     11
d =
    10     12     23
    14      8      6
    27      8      9
    12     31     45
     8      0     -9
    45      2     11
```