```
%Vitor Cavalcante%

%Lecture 2 - Matlab Fundamentals%

%Scalars examples%
r = 6
height = 5.3
width = 9.07

%Vector Examples%
h = [1, 2, 3] %Columns are separated by commas

v = [1; 2; 3] %Rows separated by semicolons

%Matris Example%
m = [3.0, 1.8, 3.6; 4.6, -2.0, 21.3; 0.0, -6.1, 12.8; 2.3, 0.3, -6.1]

%each item is located i the (row, column) format
m(2,3)

%Vitor Cavalcante%

% Exercise 1 %

a = 1

b = [1, 0 ,2]
c = [1 0 2]

d = [5, 4, 3; 0, 2, 8]

whiteRabbit = [-7, 21, 6; 2, 32 , 0; -5, 0, -18.5]


% Exercise 2 %
clear; clc

a = [10, 5, 5; 2, 9, 0; 6, 8 8]
b = [1, 0, 2; 0, 0, 0; 1, 1, 0]

a .* b

% Exerceises 3 %
clear; clc

w = [1:5; 10:2:18; 6:-1:2]

x = [1.2:1.1:5.6; 1.9:1.9:9.5; 0:-3:-12]

y = x'
z = y(2,:)
```

```
r =

     6


height =

    5.3000


width =

    9.0700


h =

     1     2     3


v =

     1
     2
     3


m =

    3.0000    1.8000    3.6000
    4.6000   -2.0000   21.3000
         0   -6.1000   12.8000
    2.3000    0.3000   -6.1000


ans =

   21.3000


a =

     1


b =

     1     0     2


c =

     1     0     2
```

```
d =

     5     4     3
     0     2     8


whiteRabbit =

   -7.0000   21.0000    6.0000
    2.0000   32.0000         0
   -5.0000         0  -18.5000


a =

    10     5     5
     2     9     0
     6     8     8


b =

     1     0     2
     0     0     0
     1     1     0


ans =

    10     0    10
     0     0     0
     6     8     0


w =

     1     2     3     4     5
    10    12    14    16    18
     6     5     4     3     2


x =

    1.2000    2.3000    3.4000    4.5000    5.6000
    1.9000    3.8000    5.7000    7.6000    9.5000
         0   -3.0000   -6.0000   -9.0000  -12.0000


y =

    1.2000    1.9000         0
    2.3000    3.8000   -3.0000
    3.4000    5.7000   -6.0000
```

```
    4.5000    7.6000   -9.0000
    5.6000    9.5000  -12.0000

z =

    2.3000    3.8000   -3.0000
```

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