Tema Laborator 2

NICOLETA RADU

# Exercitiul 1

1. x = [2 5 1 6];

Suma = 13 + x

1. Diferenta = x(4) - x(1)
2. Patrat = x .\* x
3. x(2:2:end) = x(2:2:end) + 3

# Exercitiul 2

1. a = x(3) + y
2. b = x .^ y
3. c = x ./ y
4. z = [x .\* y]

# Exercitiul 3

1. a = [1:10];

b = ones(1,10);

x= b ./ a

1. c = (0:9)

d = (1:10)

x = c ./ d

# Exercitiul 4

1. x = 2;

f = x^3 - 2 \* x^2 + x - 6.3 / (x^2 + 0.5 \* x - 1)

1. x = [2,4,6];

f = x .^ 3 - 2 .\* x .^ 2 + x - 6.3 ./ (x.^2 + 0.5 .\* x - 1)

# Exercitiul 5

a =

14 21 0

-2 11 11

3 -2 26

b =

-4 -17 2

8 -3 3

-13 18 -6

c =

12 9 8

10 11 14

2 15 17

d =

2 5 6

4 3 0

12 -1 -3

e =

0.2793 -0.2638 0.1459

0.2461 0.4055 0.3515

0.0217 1.4580 0.2619

f =

0.0241 2.9398 -0.7711

6.7229 3.1928 1.3675

-4.5663 -2.0843 0.1205

g =

0.2793 -0.2638 0.1459

0.2461 0.4055 0.3515

0.0217 1.4580 0.2619

h =

0.0241 2.9398 -0.7711

6.7229 3.1928 1.3675

-4.5663 -2.0843 0.1205

i =

8.5723 -5.9458 3.2048

1.1988 -1.4759 1.3133

-7.3855 8.7108 -3.7590

j =

-0.1533 -0.0594 -0.3073

0.3344 0.1668 0.2473

-0.0268 0.6339 0.9332

k. A/B == A\*B^-1

0 0 0

0 0 1

0 1 1

B\A == B^-1\*A  
 0 0 0

0 0 0

1. 1 1

A\B == A^-1\*B

0 0 0

1 0 1

1 1 0

l. ans =

1.0e-15 \*

0.1110 0.0555 0.0278

0.0278 0.0555 0

-0.1457 0 0

ans =

1.0e-15 \*

0.1665 0.1735 0.3331

-0.1110 -0.0278 -0.0278

-0.0729 0 0

ans =

0.2552 -3.2036 0.9170

-6.4767 -2.7873 -1.0160

4.5880 3.5424 0.1414

# Exercitiul 6

1. Nu exista diferenta
2. Nu exista diferenta
3. Nu exista diferenta
4. Nu stiu / Nu inteleg cerinta
5. A^10;  
   matrice = A^(-5);

matrice';

# Exercitiul 7

1. zeros(1,5)
2. zeros(3)
3. ones(4,3)
4. (100:-10:0)
5. Nu stiu
6. (1:0.45:10)
7. (1:2.5:11)
8. (1:3:10)
9. (20:-5:1)
10. v = logspace(-2,2,8)
11. v = logspace(1,6,5)

# Exercitiul 8

1. A = []
2. ones(10)
3. **b** = zeros(2,2);

b = b(:);

**c** = ones(2,2);

**c** = c(:);  
 **g** = [b c]; %matricea din dreapta

**d** = eye(2);

**e** = zeros(2);  
 **h** = [d;e]; %matricea din stanga

**M** = [h,g] %unirea celor 2 matrice

1. [z,x] = size(M);

zeros(z,x)

max( max(M)) si min(min(M))

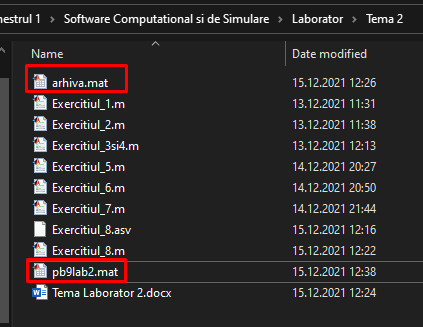
1. N = [1 2 3 4;5 6 7 8]

Y = flip(N,2)

Z = flip(Y,1)

N = [N;Z]

# Exercitiul 9

Subpunctele a,b,c,d,e,f au fost completate.

# Exercitiul 10

1. a = m1 + m2 si a = m1 + m4

a =

9.0000 + 4.0000i -2.0000 + 6.0000i

5.0000 + 3.0000i 6.0000 + 9.0000i

a =

-19.0000 + 4.0000i -2.0000 +12.0000i

-3.0000 -21.0000i -1.0000 + 9.0000i

1. a = m1 - m4

a = m2 - m3

a =

23.0000 + 4.0000i -4.0000 - 2.0000i

17.0000 +19.0000i 9.0000 - 5.0000i

a =

5.0000 + 3.0000i 6.0000 - 4.0000i

0.5000 + 5.0000i -2.0000 + 0.0000i

1. m1^2

m1.^2

m4.^3

ans =

-28.0000 +54.0000i -48.0000 +12.0000i

48.0000 +36.0000i -4.0000 +54.0000i

ans =

-12.0000 +16.0000i -16.0000 -30.0000i

48.0000 -14.0000i 12.0000 +16.0000i

ans =

1.0e+04 \*

-0.9261 + 0.0000i -0.0146 - 0.0322i

1.1000 + 0.2000i 0.0610 + 0.0182i

# Exercitiul 11

Ultimele linii de cod afiseaza transpura vectorului „d” de doua ori. De asemenea, operatiile de adunare par a se fi transformat in operatii de scadere.

# Exercitiul 12

v = [2 3 4 4 20 30 50 80 100 300 500]

v1 = v(1:4)

v2 = v(5:8)

v3 = v(8:11)

v =

2 3 4 4 20 30 50 80 100 300 500

v1 =

2 3 4 4

v2 =

20 30 50 80

v3 =

80 100 300 500

>>

# Exercitiul 13

v = ones(1,10)

a = [3 8];

b = [5 9];

v(a(1):1:b(1)) = 0

v(a(2):1:b(2)) = 0

v =

1 1 1 1 1 1 1 1 1 1

v =

1 1 0 0 0 1 1 1 1 1

v =

1 1 0 0 0 1 1 0 0 1