Metode Numerice

Tema 2

Cerinta 1

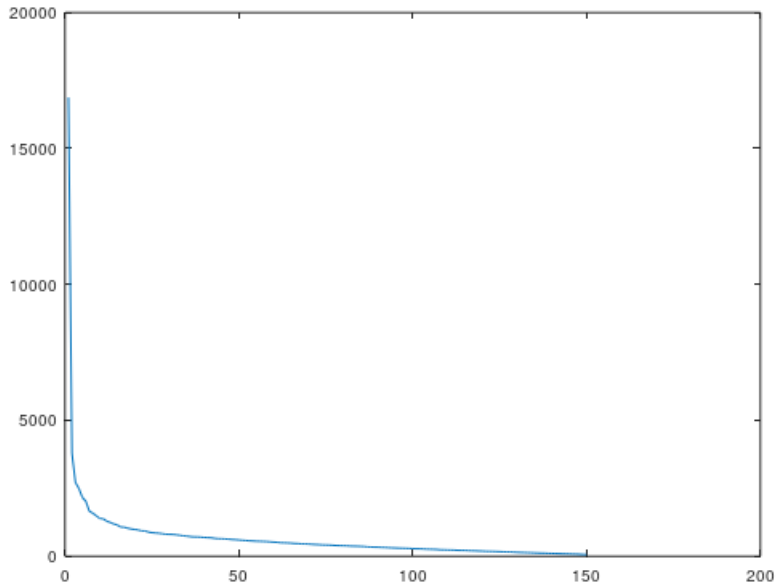
Am construit matricea A, am generat matricile U, S, V si am format matricea A_k, conform formulei date in enunt.

Cerinta 2

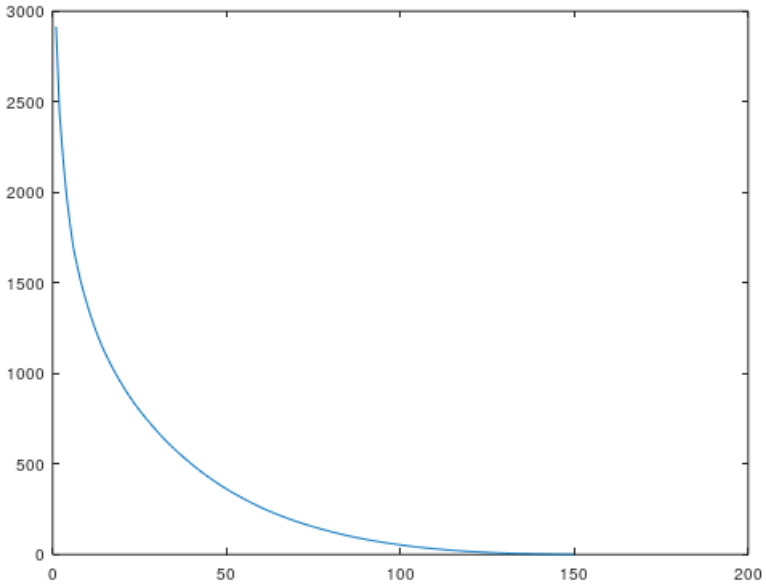
Am generat cate 4 grafice pentru imaginile 2 si 3:

Imaginea 2:

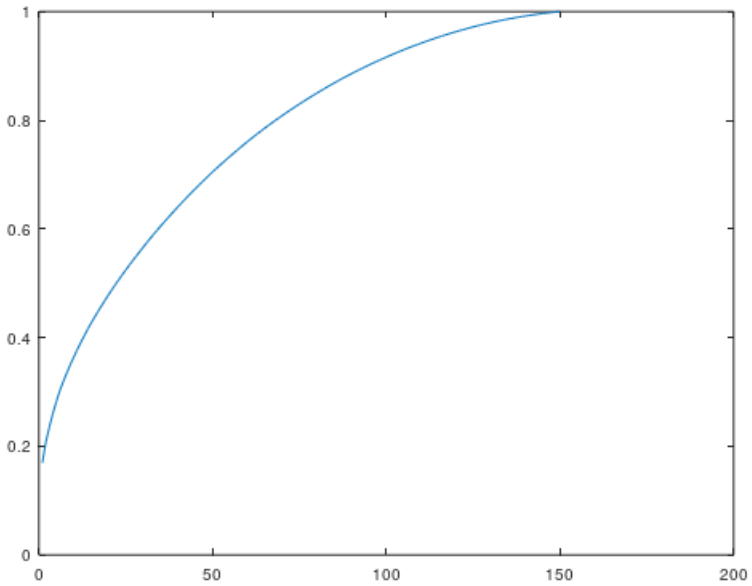
Grafic 1:



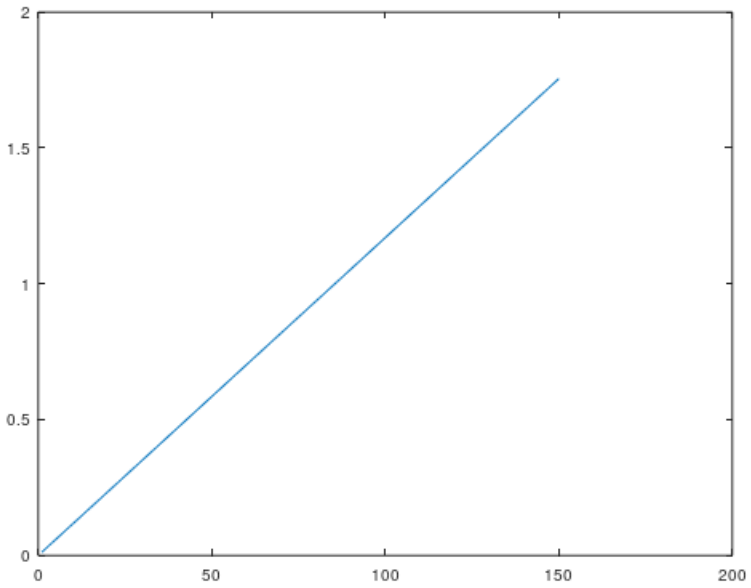
Grafic 2:



Grafic 3:

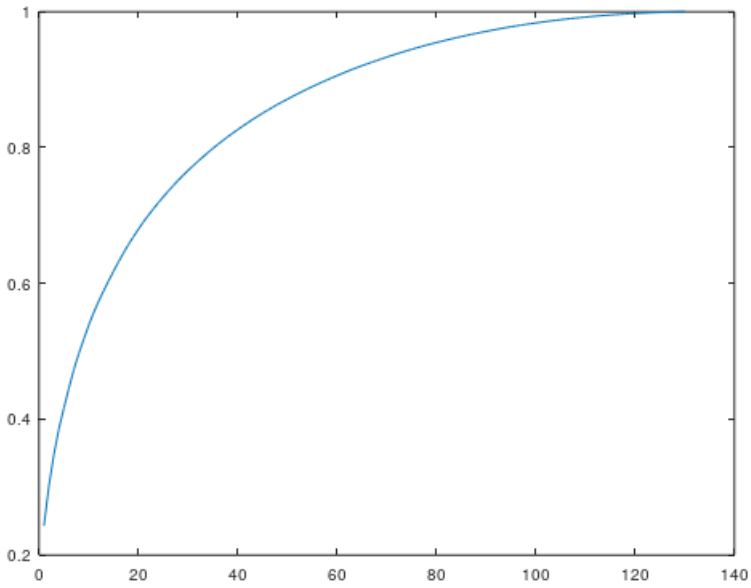


Grafic 4:

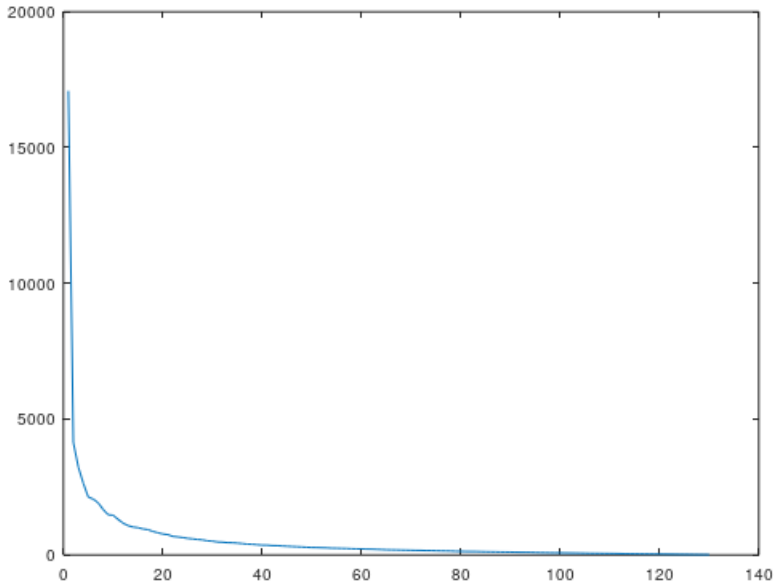


Imaginea 3:

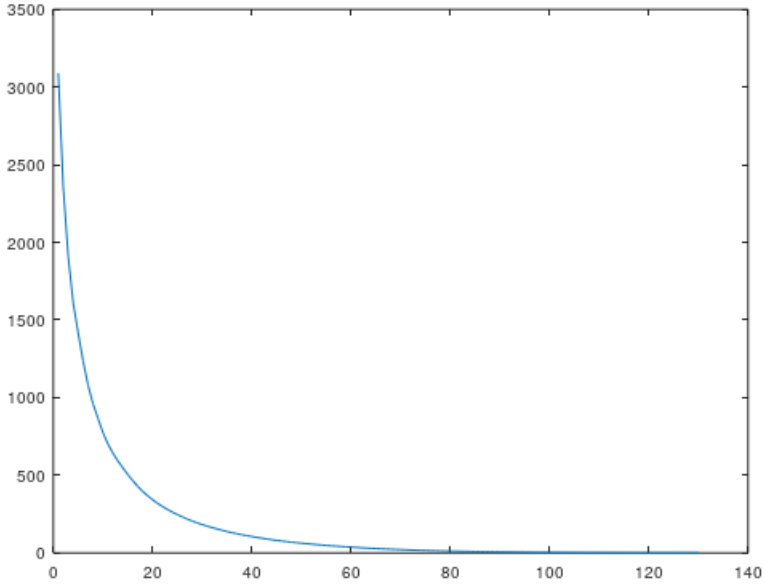
Grafic 1:



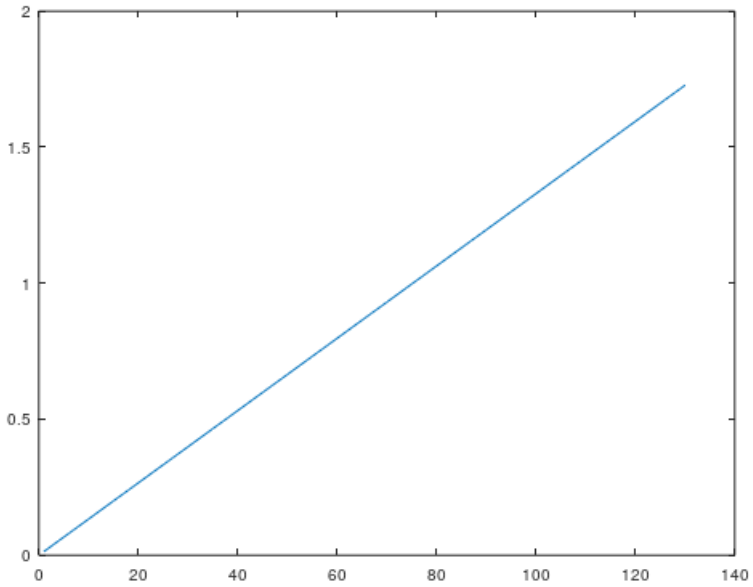
Grafic 2:



Grafic 3:



Grafic 4:



Cerinta 3

Am construit matricea A si am urmat algoritmul dat in enunt. Nu am improvizat prea multe! :D

Cerinta 4

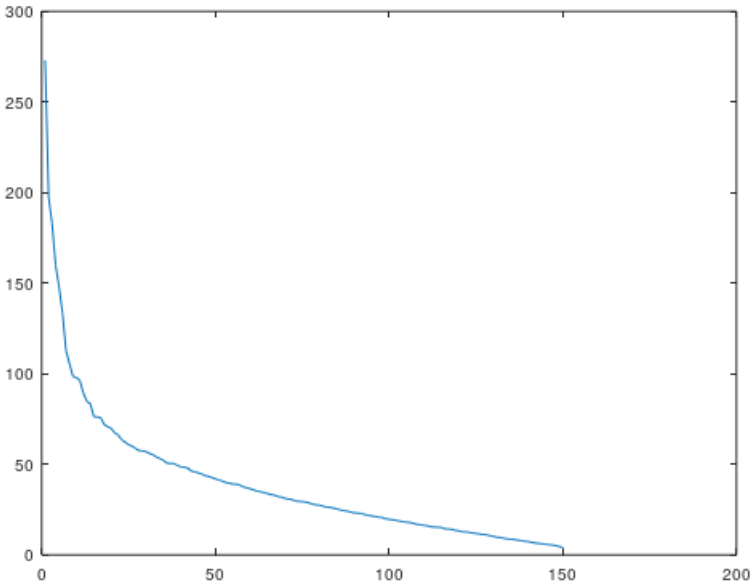
Cerinta este aproape identica cu anterioara, diferentele constand in constructia matricei Z si a utilizarii functiei ‘eig’.

Cerinta 5

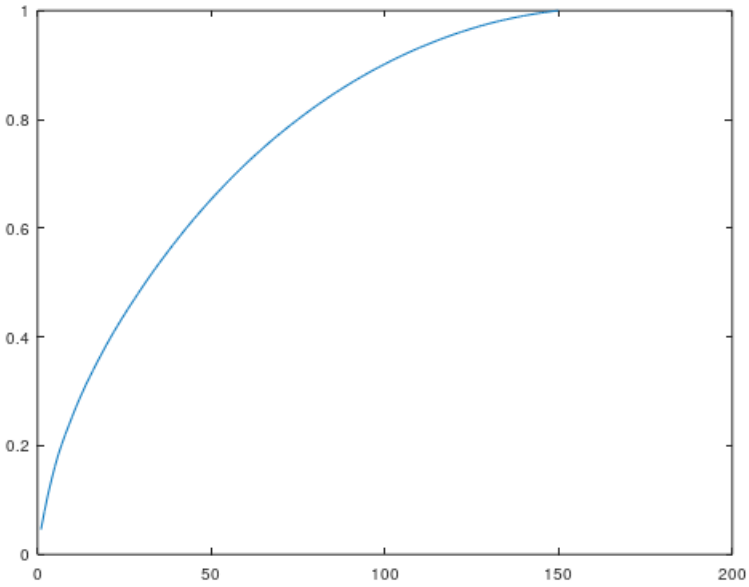
Am generat cate 4 grafice pentru imaginile 2 si 3:

Imaginea 2:

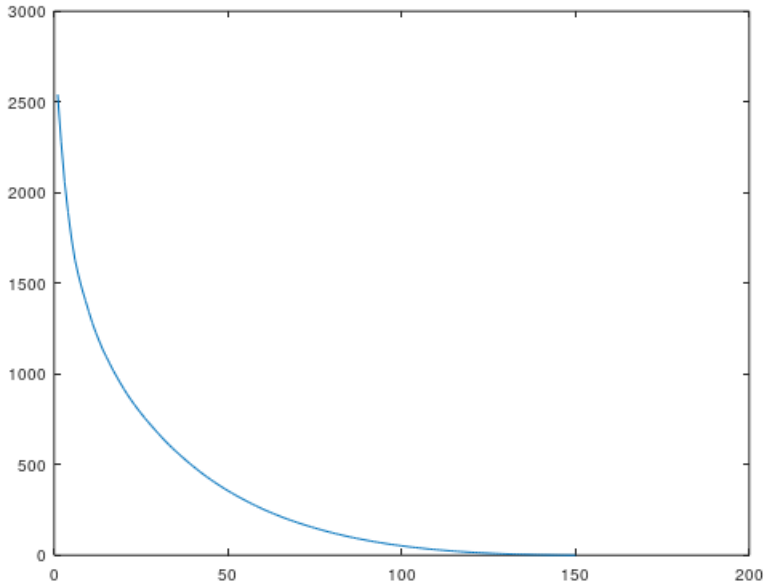
Grafic 1:



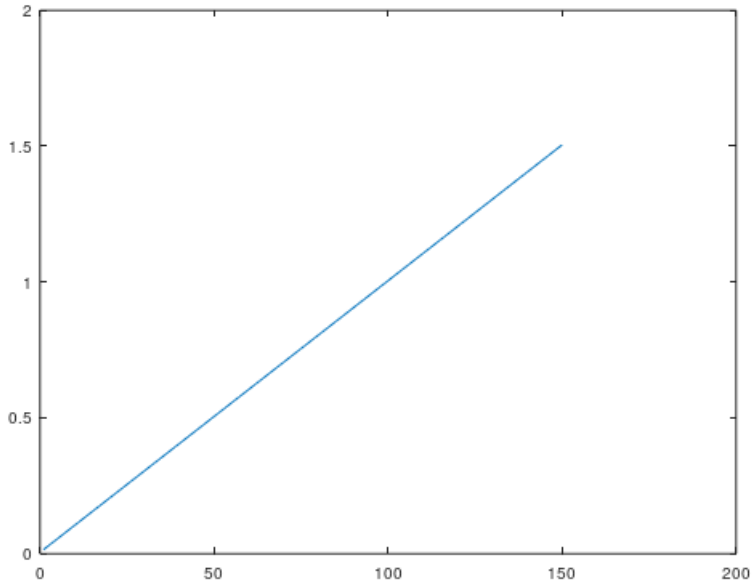
Grafic 2:



Grafic 3:

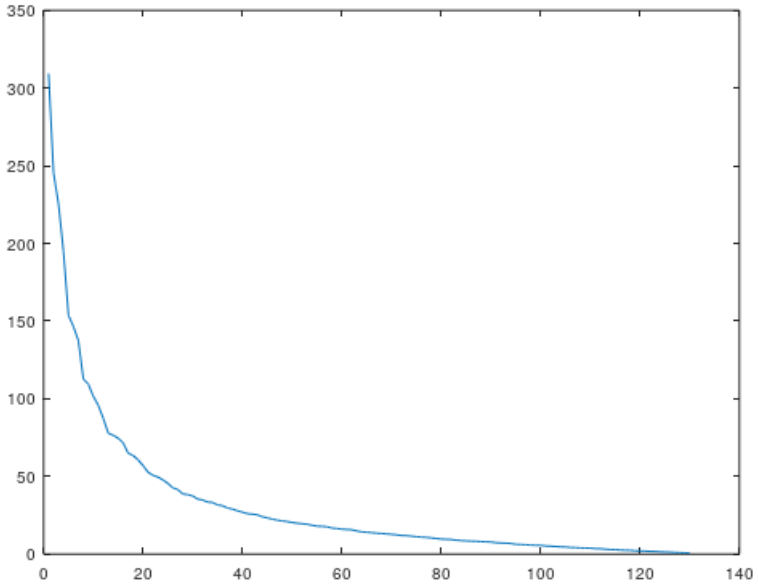


Grafic 4:

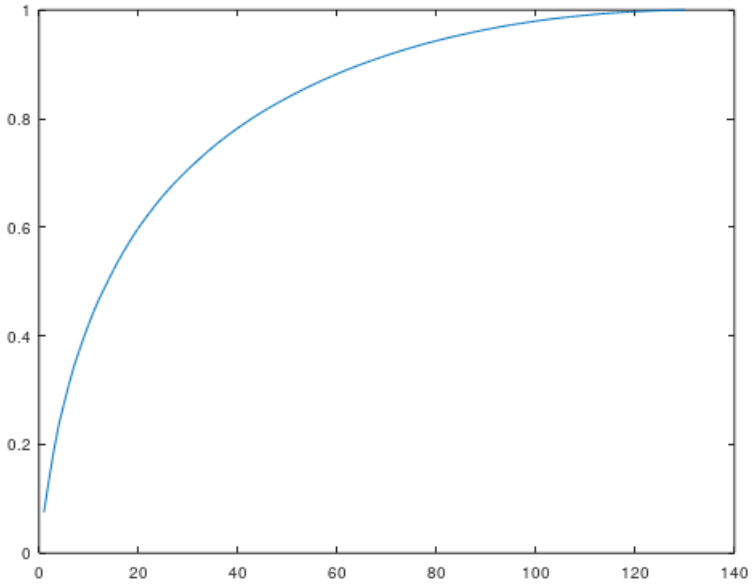


Imaginea 3:

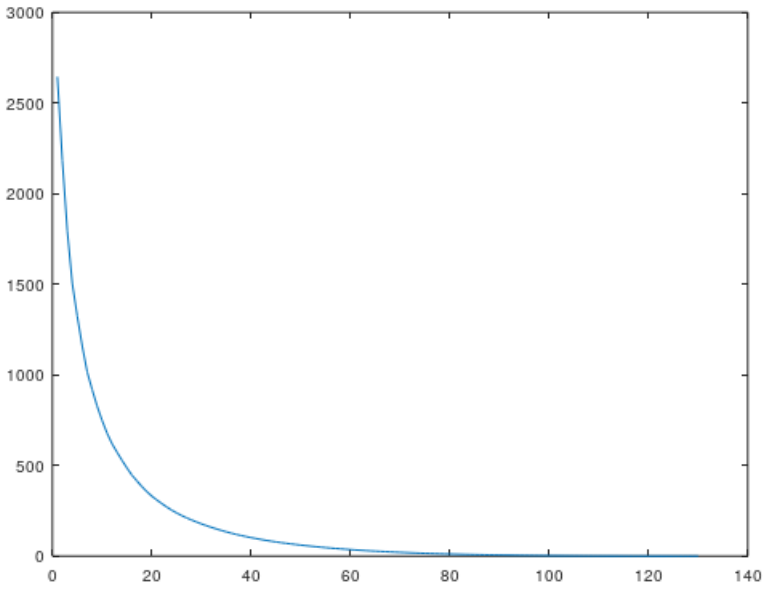
Grafic 1:



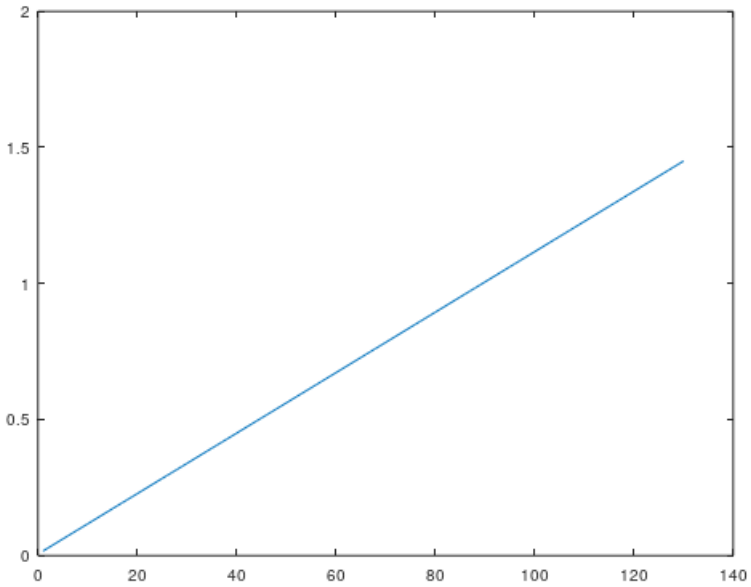
Grafic 2:



Grafic 3:



Grafic 4:



Cerinta 6

In fisierul ‘eigenface_core.m’ am realizat citirea imaginilor din ‘dataset’ cu ajutorul functiilor ‘fullfile’, ‘dir’, ‘sort’, care imi sorteaza imaginile in ordinea dorita. Generez matricile si le convertesc in vectori. Apoi am urmat intocmai instructiunile din algoritmul dat.