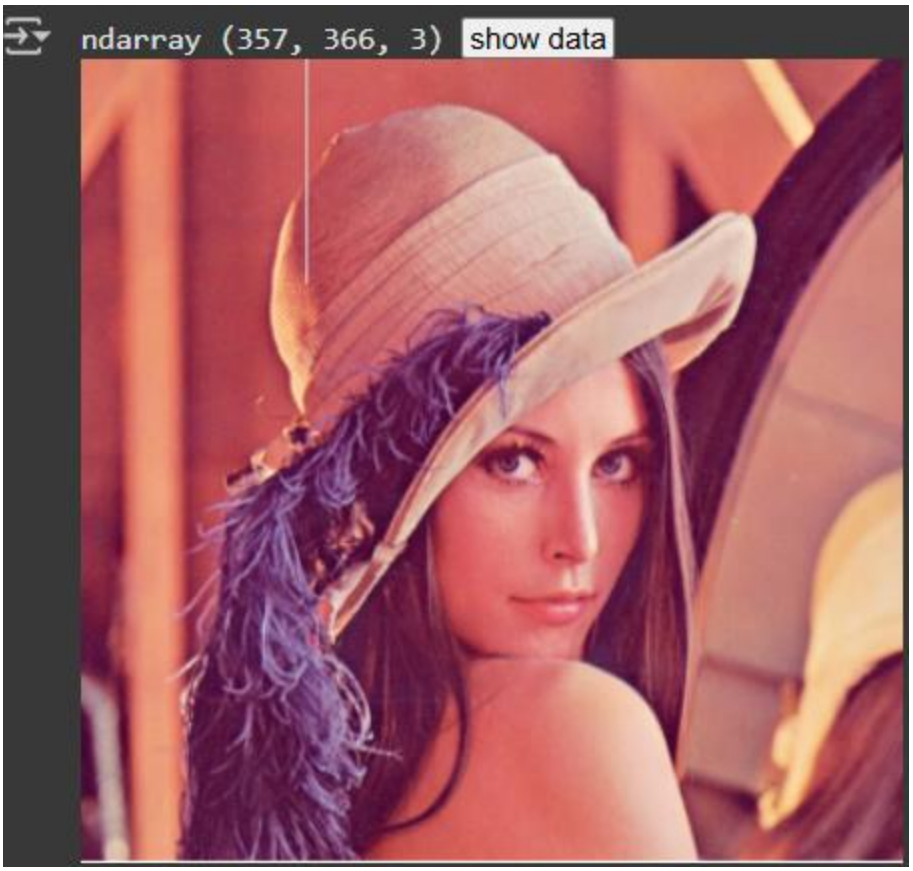
Worksheet 1

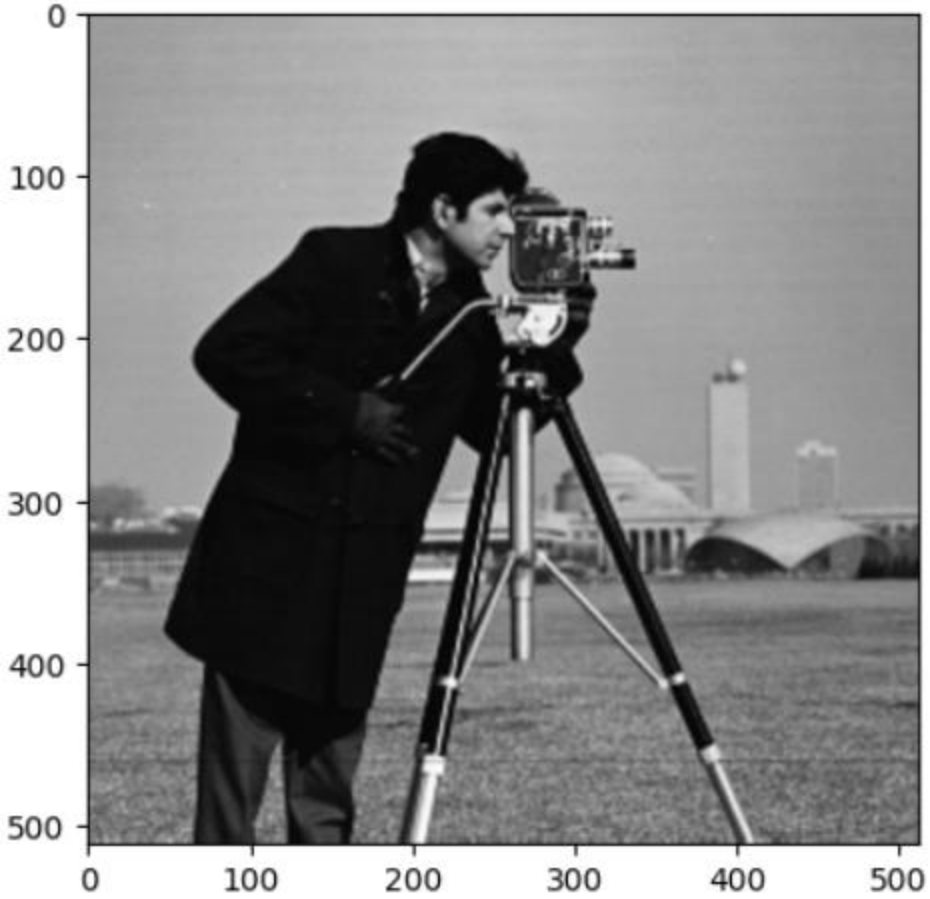
Output of every question:

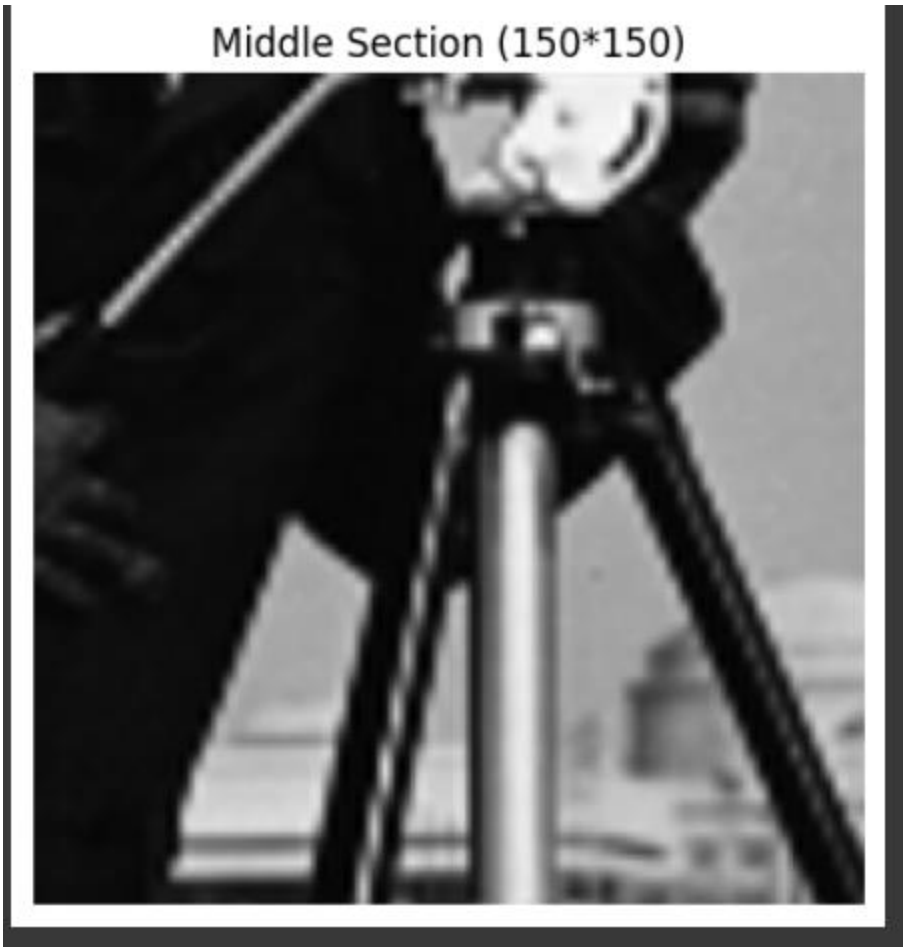
ndarray (357, 366, 3)
show data

ndarray (357, 366, 3) show data

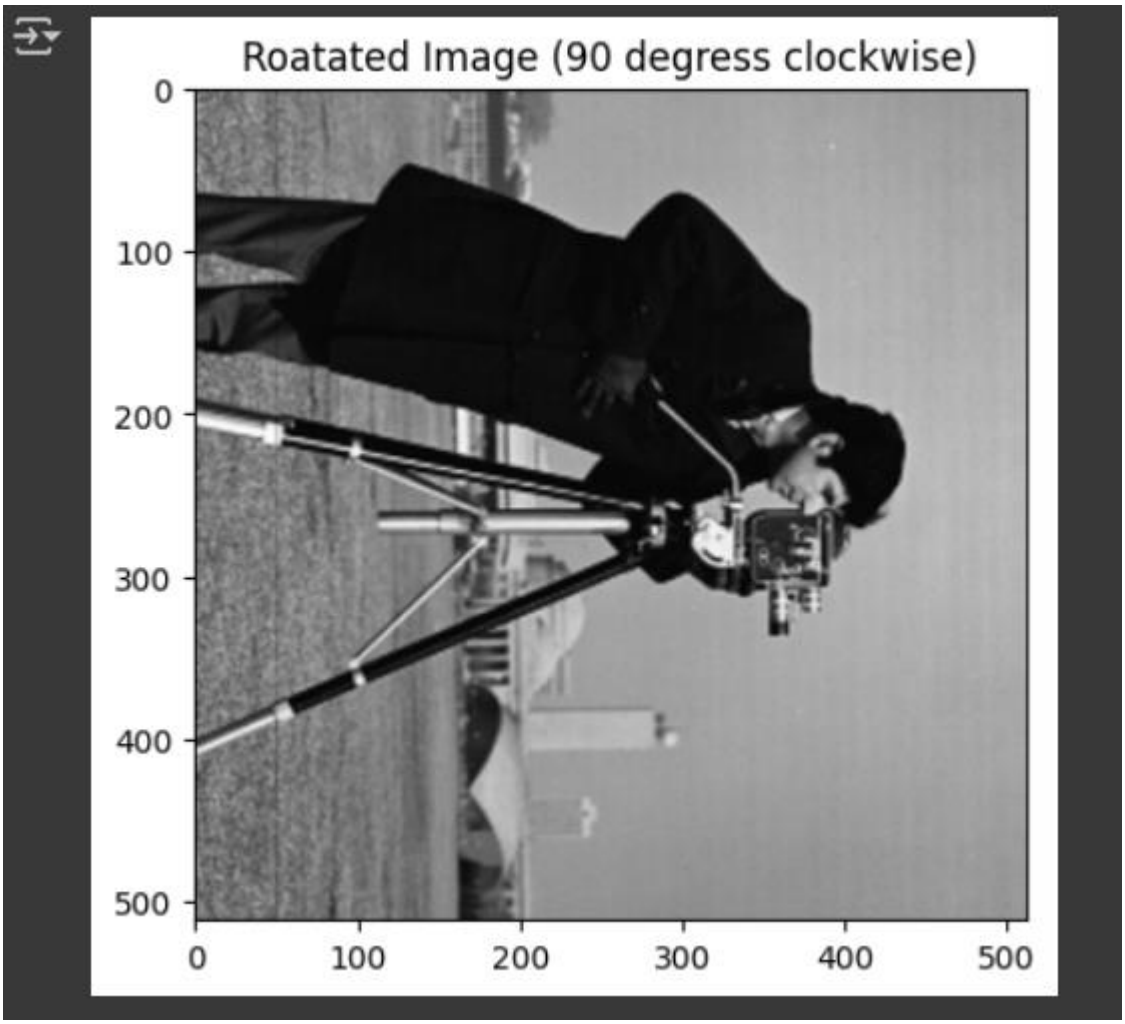
ndarray (357, 366, 3) show data


ndarray (357, 366, 3)
show data

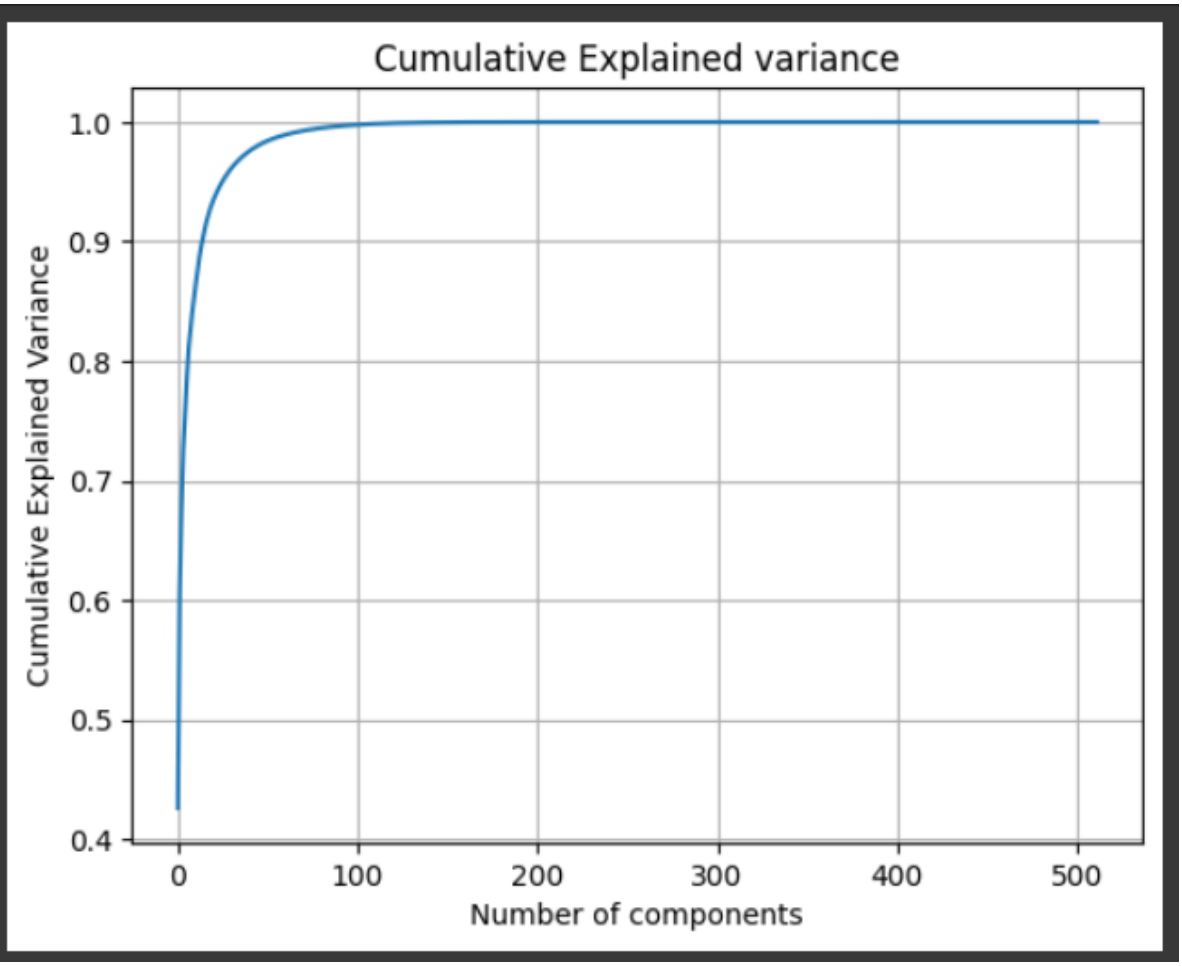

0
100
200
300
400
500
0
100
200
300
400
500


Middle Section (150*150)

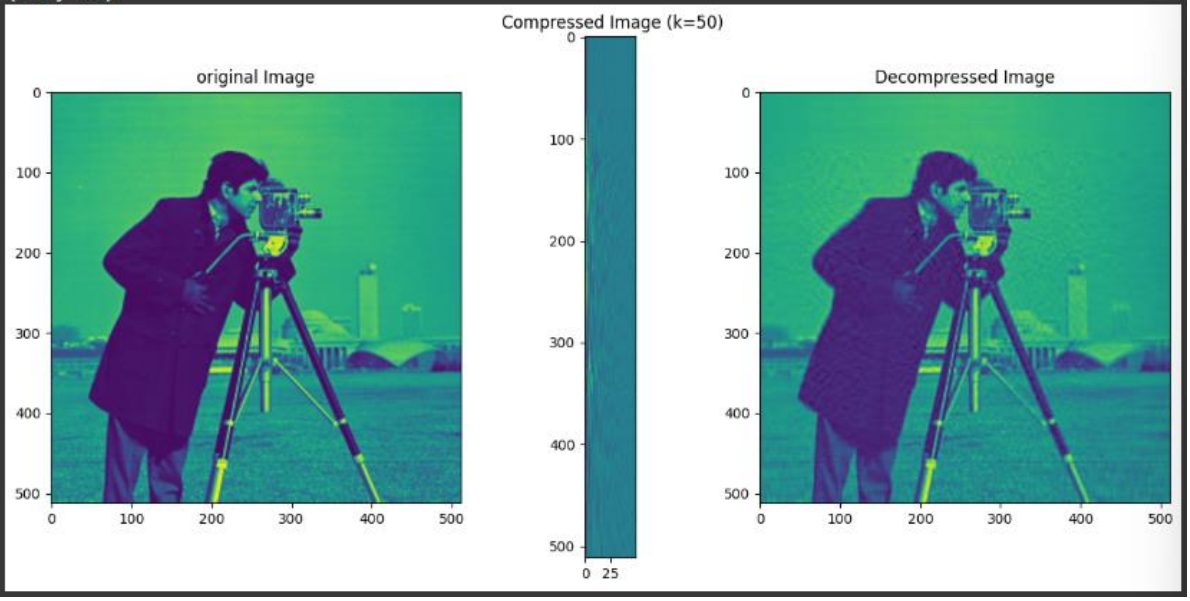
Binary Image (Threshold = 100)

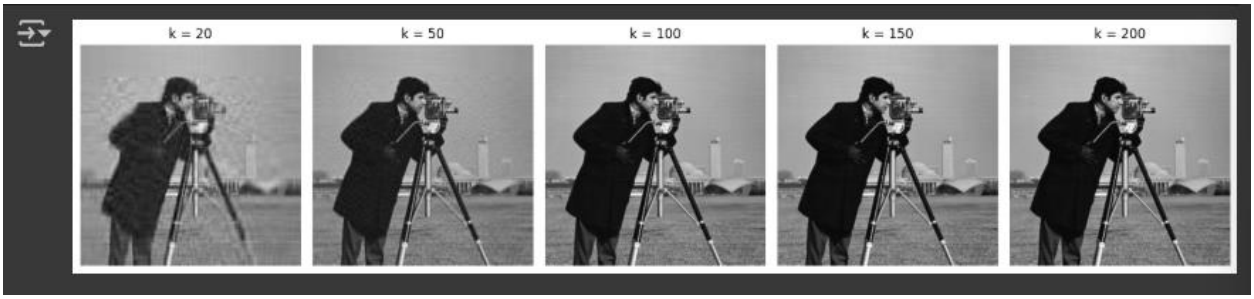

Roatated Image (90 degress clockwise)
0
100
200
300
400
500
0
100
200
300
400
500

(512, 512, 3)


Cumulative Explained variance
Cumulative Explained Variance
Number of components
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0
100
200
300
400
500

```
(512, 50)
```


original Image
Compressed Image (k=50)
Decompressed Image
0
100
200
300
400
500
0 25


k = 20
k = 50
k = 100
k = 150
k = 200