Solutions Sheet

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Exercise 1

(a) We will draw the ε-Graph for $\varepsilon = 5.5$

✓ 10P

(b) We will now draw the k-nearest neighbour graph for $k=2$

✓ 10P

20/20P
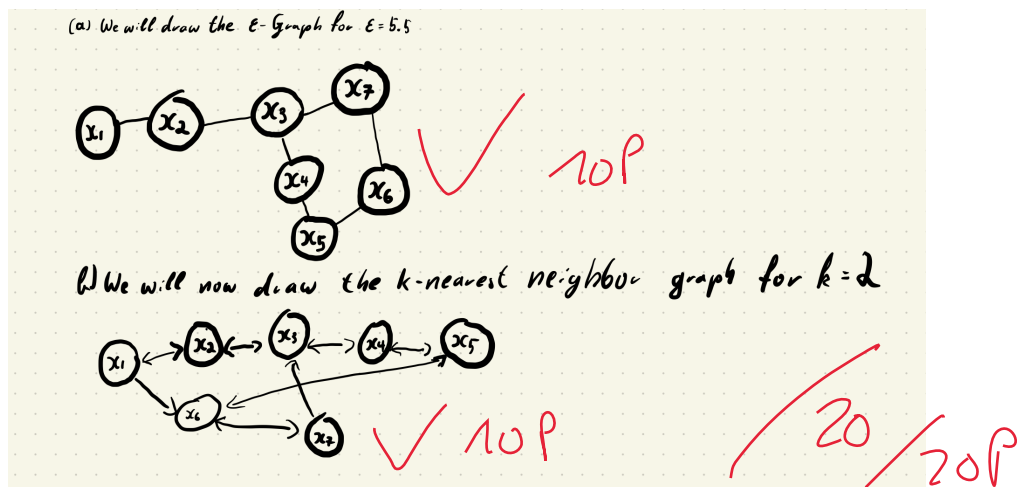
Exercise 2

For details see attached notebook. The resulting plots are:

Your MDS-function looks fine ✓. Unfortunately, there rises an error while running full MDS(X5, 20). But overall you understand the procedure ✓.
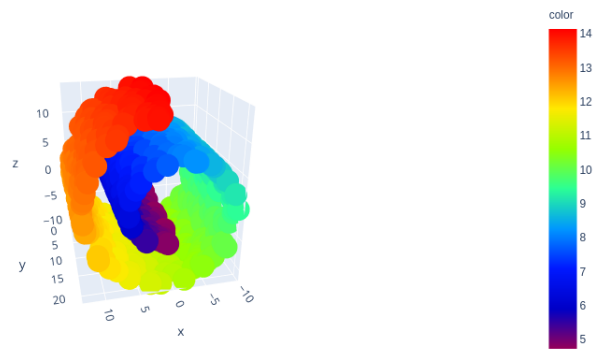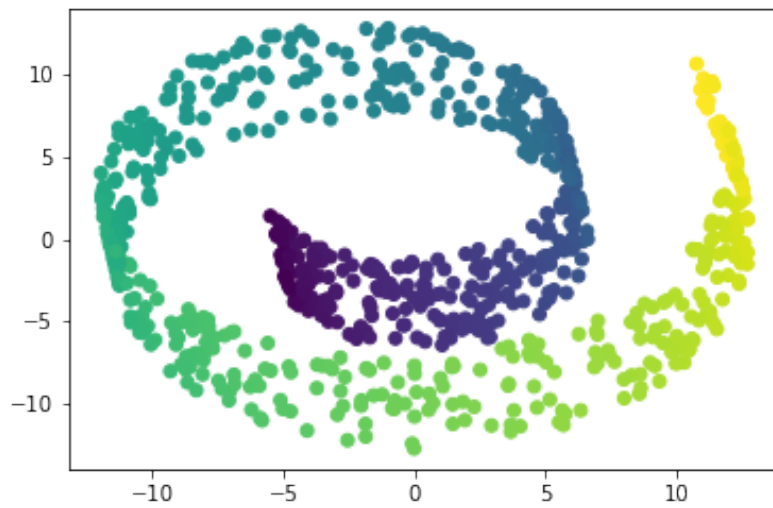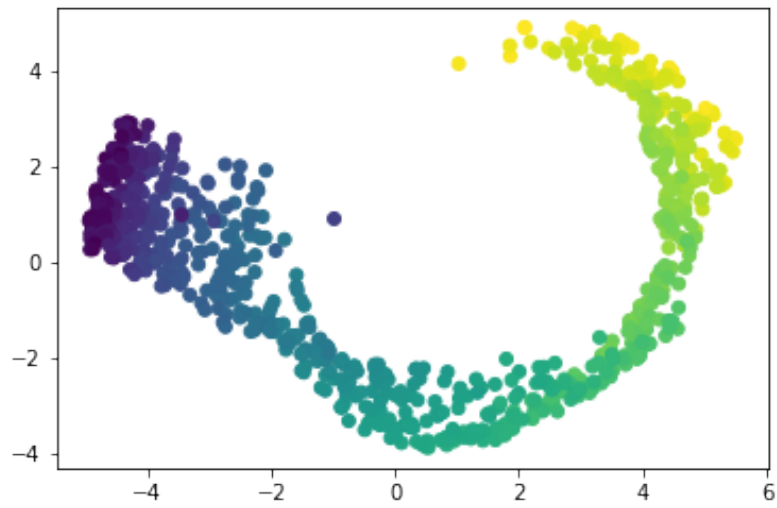
40/60 P

Figure 1: Swiss Roll

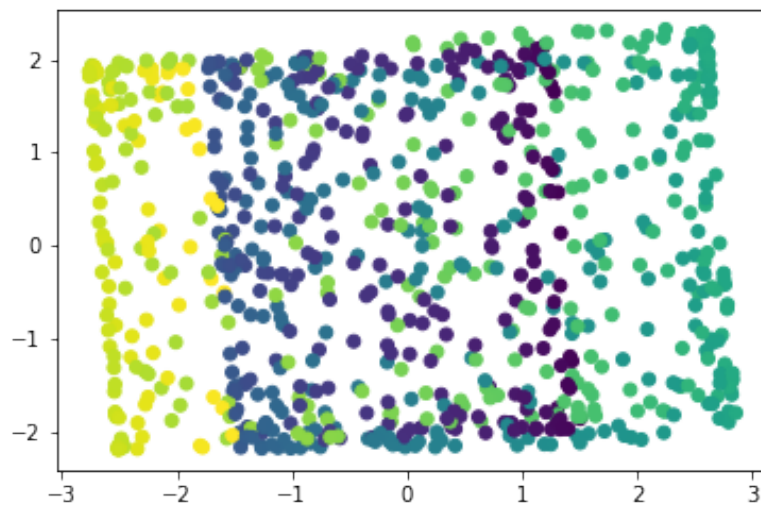Figure 2: PCA

Figure 3: MDS with k-nearest neighbour graph with k = 5

Figure 4: MDS with epsilon graph with epsilon=20

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Ex 3:10/20P