Task 4.1P Answer sheet

Fill in the "**Overall accuracy**" and "**Confusion matrix for the best setting**" columns with relevant results

Notes:

- Missing any required results will result in a re-submission.

Performance of k-NN

num_nearest_neighbours	Overall accuracy	Confusion matrix for the best setting
5	0.72	Best = 10
10	0.73	
15	0.69	
20	0.66	
25	0.64	
30	0.63	

```
num_nearest_neighbour: 10
[[18  5  7]
 [ 0 26  4]
 [ 0  8 22]]
              precision    recall  f1-score   support

           0       1.00      0.60      0.75        30
           1       0.67      0.87      0.75        30
           2       0.67      0.73      0.70        30

    accuracy                           0.73        90
   macro avg       0.78      0.73      0.73        90
weighted avg       0.78      0.73      0.73        90
```

Performance of SVM

C	Overall accuracy	Confusion matrix for the best setting
10	0.84	Best = 20, 40, 50
20	0.86	
30	0.84	
40	0.86	
50	0.86	

```
C: 20
[[26  2  2]
 [ 0 23  7]
 [ 1  1 28]]
              precision    recall  f1-score   support

           0       0.96      0.87      0.91        30
           1       0.88      0.77      0.82        30
           2       0.76      0.93      0.84        30

    accuracy                           0.86        90
   macro avg       0.87      0.86      0.86        90
weighted avg       0.87      0.86      0.86        90
```

Performance of AdaBoost

n_estimators	Overall accuracy	Confusion matrix for the best setting
50	0.80	Best = 50
100	0.78	
150	0.78	
200	0.78	

| 250 | 0.74 | ```
n_estimators: 50
[[22  0  8]
 [ 1 24  5]
 [ 3  1 26]]
              precision    recall  f1-score   support

           0       0.85      0.73      0.79        30
           1       0.96      0.80      0.87        30
           2       0.67      0.87      0.75        30

    accuracy                           0.80        90
   macro avg       0.82      0.80      0.80        90
weighted avg       0.82      0.80      0.80        90
``` |