A close-up of a piece of paper

Description automatically generatedA paper with mathematical equations and formulas

Description automatically generatedA paper with mathematical equations

Description automatically generated

3a:

A close-up of a piece of paper

Description automatically generated

3b:

A close-up of a note

Description automatically generated

3c:

A screen shot of a computer program

Description automatically generated

3d:

A computer screen with text and images

Description automatically generated

3e:

**A graph with a line

Description automatically generatedA graph with blue and orange lines

Description automatically generated**

20 gives an optimal performance.

3f:

**A math equations on a piece of paper

Description automatically generated**

**A screen shot of a computer

Description automatically generated**

**A screen shot of a computer program

Description automatically generated**

4a:

**A map of the continent

Description automatically generated**

**A diagram of a number of dots

Description automatically generated**

4b:

A computer screen with text and numbers

Description automatically generated

**Palace of San Telmo with a stone structure

Description automatically generated with medium confidence**

**A large building with a flag on top

Description automatically generated**

**A building with trees in front of it

Description automatically generated**

They are all correct.

4c: MDE is 209.86266 miles.

A computer code with text on it

Description automatically generated

4d:

**A graph with a line drawn on it

Description automatically generated**

0 is lowest error with lowest error of 140 miles.

4e:

At k = 0 we have high variance but low bias. At k = 100 we have low variance and high bias. At intermediate k values, the bias and variance are intermediate as well.

4f:

**A graph with a line

Description automatically generated**

What is the best value of k? 0.

What is the MDE in miles? 140 miles.

How does performance compare to part (e)? The same.

4g:

**A graph of a line graph

Description automatically generated with medium confidence**

I would expect kNN to continue improving while the linear regression seems to be leveling out.

A screen shot of a computer program

Description automatically generated