**MATHEMATICS APPLICATIONS**

Investigation 3 **Statistics**, 2018

## Section A – Take Home Section

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Calculators allowed**

**Section A:** To be completed at home. **Due Date:** Friday 20th July M**arks:** 23

**Section B:** To be done in class on Friday 20th of July

**The Situation**

The village of Eyam existed in the 17th Century in the south of England. Between September 1665 and October 1666 the village was struck by ‘Black Plague’ causing the deaths of 274 people. You have been provided with the records of all the people who died from the village in a spreadsheet on connect. These records contain the following information: Death count (order in which the villager died), Name, Gender, Age, Day of the week death occurred, Distance they were from Town Hall, Date of death and Day count from the first death.

**Your Task**

Investigate **at least** **two** **statistical variables** from the source data provided in the spreadsheet. Eg Age and date of death, Gender and Age at death.

Make a **written report** to display all your findings.

Your presented work must include a **plan,** indicating what you have chosen to investigate and how you chose your sample size, which should be at least 30 pieces of data, your **method** of sampling and which statistical methods you are going to use to **analyse** the data.

You will have **2 weeks** to complete this assignment.

It is due for submission Friday 20th of July.

1. **Introduction (2, 2, 2 = 6 marks)**

* Two or three sentences providing an overview of your investigation.

* A plan of what data you intend to investigate and what statistics you will use.
* State what questions you wish to answer about the data you have collected.

1. **Numerical and technological analysis (1, 3, 3, = 7 marks)**

* Choose an appropriate sample of data.
* Construct appropriate graphs and tables to display data.
* Calculate appropriate statistics to answer questions.

1. **Interpretation of the results from part 2 in relation to the original questions.**

**(3, 2 = 5 marks)**

* Interpret statistics and make comparisons between variables.
* Answer questions from Part One using statistics calculated in Part Two.

1. **Conclusion (2, 2, 1, 1 = 6 marks)**

* **Summarise** what you have discovered.
* **Comment** on what you did well and what else youcould have done.
* **Discuss** the limitations of this project.
* **Reflection:** Would you have stayed in the village?