**Maths Investigation- Draft Due Date Friday Week 7**

**Probability and Statistics – Data Representation and Interpretation.**

**Question: *Does gender bias exist?***

**Instructions**

You need to:

1. ***Select*** and ***investigate*** **one** of the Inquiry Questions listed below to determine whether gender bias exists in society and why.
2. ***Attend all Targeted Teaching sessions*** *about data.*
3. **Collect and analyse both *Primary* and *Secondary data*** in relation to your investigation. You will need to research to access reliable statistics (e.g. ABS) and collect your own.
4. Demonstrate your understanding of ***average calculations*** e.g. mean, median & mode, ***measures of middle*** and ***measures of spread*** (advanced learners). Ensure that all formulae and calculations are shown where required.
5. ***Interpret*** the meaning of ***mean, median & mode*** in relation to ***any bias*** in your investigation.
6. ***Construct a variety of graphs*** to assist in ***comparing, interpreting and analysing* your data** ***sets*** by selecting the most appropriate forms to graphically present your data:

* Box and Whisker Plot (compulsory for all questions)
* Stem and Leaf Plot
* Histogram
* Dot Plot
* Scatter Plot
* Please be aware that some types of graphs are more suitable to different types of questions than others.

1. Use the information you gathered in steps 1-6 to analyse whether gender bias exists for your Inquiry Question and why.
2. Read through the ***Maths Report Marking Rubric*** carefully to ensure you have collected all the appropriate information for each section of the report.
3. Construct your Mathematical Report ensuring you thoroughly answer the question and refer back to your ***evidence*** to support ***your judgment***.
4. Check each aspect of your work against the rubric frequently and seek staff feedback prior to final submission.

Are males ‘better’ drivers than females?

Does your gender determine your ‘chances’ of getting a job?

Do males financially earn more than females?

Does female sport get ‘a fair go’?

Do females live longer than males?

Do males snore more than females?