



Year 7 Mathematics Assessment Task 1 - 2024

TOPIC: Data Classification and Visualisation	MARKS: 39
SUBMISSION REQUIREMENTS: Term 1 - Week 5 - <u>In Class</u>	
OUTCOMES TO BE ASSESSED: MAO-WM-01 – develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly MA4-DAT-C-01 – classifies and displays data using a variety of graphical representations	
DIRECTIONAL VERBS: Applying – use, utilise, employ in a particular situation Choose – decide on a course of action Classifies – arrange or include in classes/categories Communicate – Connects , explains, relates cause and effect; make the relationships between things evident; provide why and/or how using appropriate terminology, diagram and/or symbols Develops – grow or cause to grow and become more advanced or elaborate Displays – show data and/or image Explore – inquire into or discuss a subject in detail Reason – think, understand and for judgements logically Solve – find an answer to, explanation for, or effectively find a solution to a problem	

TASK DESCRIPTION:

Section 1 – COLLECTING THE DATA /6

1. In groups, you will investigate a SURVEY TOPIC relevant to Year 7 students. Your groups will be created based on your common interests. (Maximum of 7/group)
2. You will create an individual SURVEY QUESTION relevant to your survey topic. Each student will be *responsible for their own survey question* that contains a choice of four answers. Each group should have a mixture of questions that create categorical or nominal data.
3. You will COLLECT DATA by surveying the students and teacher in your own class.

Section 2 - REPRESENTING THE DATA /24

4. You will tabulate the responses in a FREQUENCY DISTRIBUTION TABLE, ensuring all features of the table are included.
5. You will then create a DIVIDED BAR GRAPH, FREQUENCY HISTOGRAM and POLYGON, DOT PLOT, LINE and COLUMN GRAPH and SECTOR GRAPH by using the data from the frequency distribution table and ensuring all features of the graphs are included.

Section 3 – VISUALISING THE DATA /9

6. In groups, will create an INFOGRAPHIC, presenting each individuals question using a different type of graph. This will be done on a separate poster. A draft page has been provided.

An **infographic** is a way to visually represent survey data. Data should be presented in a way that enhances retention and recall of information through visually compelling **design** and easily understood **format**. It should include all important **data** from the survey using diagrams. A short **analysis** of the survey topic data should be given including an **interpretation, conclusion and prediction**.