Year 12 Essential Statistical Investigation marking rubric

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|  | A marks | B | C | D |
| clarify the problem and pose one or more questions that can be answered with data | Identifies relevant information from multiple sources or within concentrated sources. | Identifies and links more than one piece of information. | Identifies relevant information and chooses the appropriate statistical concepts to solve a problem in straightforward or familiar situations. | Identifies some relevant information and sometimes chooses statistical concepts to solve a problem in straightforward or familiar situations. |
|  | A | B | C | D |
| design and implement a plan to collect or obtain appropriate data | Chooses the appropriate statistical investigation techniques to solve a range of problems in unstructured situations. | Chooses the appropriate statistical investigation techniques to solve problems in mostly familiar and sometimes unstructured situations. | Plans the solution of real problems in Statistical investigations when an overview of the mathematical thinking process has been provided. |  |
|  | A | B | C | D |
| select and apply appropriate graphical or numerical techniques to analyse the data | Uses appropriate data collection techniques, and recognises and adjusts for sources of bias or inconsistencies in data. | Applies appropriate graphing techniques and determines appropriate scales based on the data.  Uses appropriate data collection techniques and recognises sources of bias or inconsistencies in data. | Applies appropriate graphing and data collection techniques. | Uses appropriate graphing techniques with support. |
|  | A | B | C | D |
| interpret the results of this analysis and relate the interpretation to the original question | Uses accurate statistical language to communicate methods and solutions to multi-step problems. |  | Shows working, including intermediate steps and/or expressions entered into a calculator or spreadsheet. | Shows limited working, including some intermediate steps and/or expressions entered into a calculator or spreadsheet. |
|  | A | B | C | D |
| communicate the findings in a systematic and concise manner. | Accesses a comprehensive range of statistical concepts to validate conclusions which are related to the original question or context. | Accesses a range of statistical concepts to communicate solutions and justify conclusions which relate to the original question or context, including for some non-routine problems. | Provides short statements based on straightforward observations which are related to the original question or context. | Provides short statements which may not be related to the original question or context. |