**Summarises the analysis (5 points)**

This summary provides a comprehensive analysis of the academic performance and budget allocation across 15 schools, offering valuable insights into how financial resources and student outcomes are related.

**Summary Statistics:**

1. **School Size and Budget**: The data shows significant variability in school sizes and budgets. The largest school has 4,976 students, while the smallest has 427. Similarly, school budgets vary significantly, with the highest being over $3 million and the lowest just under $250,000.
   * **Budget**:
     1. **Count**: 39,170
     2. **Mean**: $2,117,241.00
     3. **Standard Deviation**: $874,998.70
     4. **Min/Max**: $248,087.00 / $3,124,928.00
2. **Reading and Maths Scores**: Both subjects show a wide range of scores, with the lowest at 39 and the highest at 99. The median scores for both reading and math are 70, indicating a central tendency around this value.
   * **Reading Score**:
     1. **Count**: 39,170
     2. **Mean**: 69.98
     3. **Standard Deviation**: 17.24
     4. **Min/Max**: 39 / 99
     5. **25th/50th/75th Percentile**: 55 / 70 / 85
3. **Distribution**: The 25th percentile for both reading and math scores is at 55 and 56, respectively, while the 75th percentile is at 85 for both, indicating that 50% of students score between 55-85 in reading and 56-85 in math. The budget distribution shows a median of $1,910,635, with the 75th percentile being just over $3 million, highlighting some schools with significantly higher funding.

**Key Observations:**

* **Resource Allocation**: The large standard deviation in school size and budget suggests unequal distribution of resources, which may contribute to varying student performance across schools. Schools with lower budgets might require additional funding to boost student outcomes.
* **Performance Variation**: The spread in scores (from 39 to 99) indicates a broad spectrum of student performance, which might necessitate differentiated teaching approaches or targeted support for students at the lower end of the spectrum.

This data provides a foundation for further analysis to explore correlations between budget allocations, school size, and academic performance. Such insights can help in identifying effective strategies for improving student outcomes, particularly in underperforming schools.

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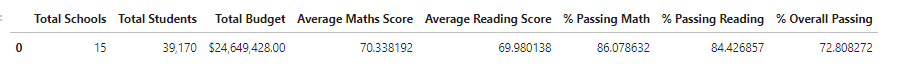
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**Draws two correct conclusions or comparisons from the calculations (10 points)**

The two key conclusions drawn from the database provided are:

**impact of Per-Student Budget on School Performance**

The analysis shows that government schools generally have a higher per-student budget ($643.86) compared to independent schools ($599.56). However, despite this higher budget, independent schools are outperforming government schools in terms of academic performance. The average overall passing percentage in independent schools is 76.69%, which is approximately 6% higher than in government schools (70.41%).



This suggests that factors beyond just budget allocation, such as teaching quality, curriculum, and student support services, may play a significant role in determining academic success. For example, Griffin High School (Highest Performing School) demonstrates that effective budget management and possibly other qualitative factors can lead to superior academic outcomes, even with a slightly lower per-student budget when compared to Hernandez High School (the lowest performing school).

**Performance Variation Across Different School Years:**

The performance analysis across different school years reveals that many schools peak in performance during Year 11, with scores often dipping in Year 12. This trend suggests that Year 11 might be a pivotal year where students are particularly focused, possibly due to increased academic challenges or preparation for final exams. The subsequent dip in Year 12 could be attributed to the pressures of final exams or other stressors, indicating a need for targeted support for students in their final year to maintain or improve performance levels.

These conclusions emphasize the complexity of educational outcomes, where both financial resources and academic strategies must be carefully balanced to optimize student success.