

Anchor Paper Scoring and Rationales - Task: Screen Time

Name: Student A

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	This student demonstrates a partial understanding of the concepts and skills associated with the task. The student knows how to find the mean for part A, but is confused with using the answer for part A as the missing data point instead of determining whether the mode or mean would be the 14 th data point.
Problem Solving	Developing	This student shows a limited understanding of all the mathematics concepts needed to solve this task. The student is proficient in Part A (guess and check), however Part B is lacking. In Part B, the student did not address the mode and added a 14 th point from part A and not a new value.
Communication and Reasoning	Emerging	This student does not provide any reasoning or justification to communicate their thinking.
Representations and Connections	Developing	This student uses an incomplete representation to model this problem. The student places the data in order from least to greatest in part A, however in Part B, the answer found in part A was used as the 14 th data point instead of determining whether the mode or median would be a better data point instead.

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Name: Student B

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Proficient	The student showed an understanding of the mathematics concepts and skills needed to solve this task and provide a correct solution.
Problem Solving	Proficient	The student produced a solution that is relevant to the problem and confirms the reasonableness of the solution.
Communication and Reasoning	Developing	The students showed limited reasoning in explaining the solution to this task. While the student found the mode for Part B by circling the data points, they did not address the value when providing justification for the solution.
Representations and Connections	Proficient	The students used a representation (ordering the data) to explore and model the problem. The mode is identified by circling the data points in Part B and the student used an equation to find the median.

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Name: Student C

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	The student demonstrates a partial understanding of the concepts and skills associated with this task. While the student shows an understanding of Part A, the mathematical understanding in Part B is incomplete.
Problem Solving	Developing	The problem-solving strategy used by the student displays a limited understanding of the underlying mathematical concepts in this task. While Part A produces a correct solution, Part B only uses 13 data points instead of finding a 14 th data point using the mode or median.
Communication and Reasoning	Developing	The student provided limited and inconsistent evidence to support their thinking. Part A lacks an explanation of the students thinking and Part B showed incomplete evidence and reasoning.
Representations and Connections	Developing	The student used an incomplete representation to model the problem for part B using only 13 data points.

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Name: Student D

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Proficient	The student applied mathematical concepts and skills which lead to a valid and correct solution for both Parts A and B.
Problem Solving	Proficient	The student used a problem solving-strategy (guess and check) for part A and ordering the data from least to greatest to assist with part B which produced a correct solution.
Communication and Reasoning	Proficient	The student used mathematical language to communicate their thinking. For example, in part B the student explained how $225 > 205$, so the median is the best solution to the problem.
Representations and Connections	Proficient	The student ordered the data from least to greatest to explore and model the problem.

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Name: Student E

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	The student applied mathematical concepts and skills which lead to an incomplete solution to the task.
Problem Solving	Developing	The student used a guess and check method to get close to 240 in part A, but did not try to find an exact answer.
Communication and Reasoning	Emerging	The student provided limited evidence to support their arguments and claims.
Representations and Connections	Developing	The student used an incomplete representation to model the task, only using 13 data points for part B.

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Name: Student F

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	The student demonstrated a partial understanding of the concepts and skills associated with this task. The student provided a correct answer for Part A, but in Part B, the student only used 13 data points in evaluating whether the median or the mode was the better option for Jasmine.
Problem Solving	Developing	The problem-solving strategy used in Part A (guess and check) yielded a correct answer. However, in Part B, the student only used 13 data points to find the median and analyze the information to determine if the median or mode was a better option for Jasmine.
Communication and Reasoning	Developing	The student reasoning and use of mathematical language is limited and contained misconceptions.
Representations and Connections	Developing	The student used an incomplete model (only 13 data points) to explore the task for part B.