Anchor Paper Scoring and Rationales

Task: Sticker Sets   **Student: A**

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Advanced	The student demonstrates understanding and applies mathematical skills associated with the task. The student uses numbers other than zero in the ones place and uses relationships among the concepts. The student was able to see that you could add 10 and subtract 10 for various numbers and has multiple solutions. It appears the student is making generalizations in the table created.
Problem Solving	Proficient	The student displays a problem solving strategy that is relevant to the problem. The student understands the underlying mathematical concept of 10 more and 10 less.
Communication and Reasoning	Proficient	The student communicates their thinking process with an organized table.
Representations and Connections	Proficient	The student uses a table as representation of thinking with accurate labels for each person-Christian, Abby, and Madison. The student has made a mathematical connection that is relevant to the context of the problem and realizes that Christian has 10 more than Madison and Abby has 10 less than Madison.

Anchor Paper Scoring and Rationales

Task: Sticker Sets   **Student: B**

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Proficient	The student demonstrates an understanding of concepts and skills associated with the task. The student provides a valid and correct solution and states, "I chose 30 and I did 10 more and 10 less."
Problem Solving	Proficient	By using tally marks, the student uses a problem solving strategy that is relevant to the problem and confirms the reasonableness of the solution.
Communication and Reasoning	Proficient	The student communicates the thinking process with her labeling. We can see that the student started with Madison from the label "1st". Abby was second and Christian was third. She justified her solution steps by saying I did 10 more, I did 10 less.
Representations and Connections	Proficient	The student's representation used accurate labels to explore and model the problem. The student made a connection to the context of the problem with the tallies.

Anchor Paper Scoring and Rationales

Task: Sticker Sets   **Student: C**

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Emerging	The student demonstrates little understanding of the concepts and skills associated with the task. The student realizes that Abby has the fewest stickers and that Christian has the most, but does not attend to the 10 more, 10 less relationship required of the task.
Problem Solving	Emerging	The problem solving strategy does not produce a solution relevant to the problem.
Communication and Reasoning	Developing	The student uses 2+0=2, 3+0=3, and 10+0=10 to communicate thinking. The student's reasoning contains misconceptions, as there is no evidence to the 10 more, 10 less relationship between values.
Representations and Connections	Developing	The student has a table with labels for each student Abby, Madison, and Christian. The student makes a connection to addition with the equations 2+0=2, 3+0=3, and 10+0=10 but they are not relevant to the context of the problem.

Anchor Paper Scoring and Rationales

Task: Sticker Sets   **Student: D**

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Emerging	The student demonstrates no understanding of the task. The numbers picked for Christian, Abby, and Madison are random and do not show understanding of the 10 more, 10 less relationship required of the task. The student does not understand that Christian should have the largest number of stickers and that Abby should have the smallest number of stickers.
Problem Solving	Emerging	The student does not produce a solution that is relevant to the task.
Communication and Reasoning	Emerging	The student does not provide evidence to support arguments and claims. The student appears to be trying to create a word problem that has nothing to do with the task.
Representations and Connections	Emerging	The student uses numbers 18, 14, 100, and words that do not model the problem.

Anchor Paper Scoring and Rationales

Task: Sticker Sets   **Student: E**

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Advanced	The student demonstrated an understanding of concepts and skills associated with the task, which lead to two valid solutions. He applied the 10 more, 10 less relationship using three-digit numbers. The student's realization that only the tens place was changing, demonstrates using relationships among mathematical concepts.
Problem Solving	Proficient	The student used a problem solving strategy that displays an understanding of the underlying mathematical concept. The student used base ten pieces to model the problem.
Communication and Reasoning	Proficient	The student supports arguments and claims with evidence. The student tells us that they started with M (Madison) and took away 10 for Abby and added 10 for C (Christian). The student indicates that 10 less than 450 is 440 and that 460 is 10 more than 450.
Representations and Connections	Proficient	The student uses a representation with accurate labels; A for Abby, M for Madison, and C for Christian along with base ten pieces, to explore and model the problem.

Anchor Paper Scoring and Rationales

Task: Sticker Sets   **Student: F**

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Proficient	The student demonstrates an understanding of the 10 more, 10 less relationship required of the task which leads to a correct solution. The student starts with Christian and works from there.
Problem Solving	Proficient	The student used a problem solving strategy that displays an understanding of the underlying mathematical concept. The student used base ten pieces to model the problem.
Communication and Reasoning	Proficient	The student communicates their thinking process and demonstrates reasoning with base ten blocks. The student reasons it would not make sense to start with Christian having 20 because that would mean Abby would have no stickers.
Representations and Connections	Proficient	The student uses a representation of base ten blocks, with accurate labels, to explore and model the problem. The student makes a connection when she says it would not make sense to start with Christian having 20 because that would mean Abby has no stickers.