

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma

Name: Student A

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	Student A demonstrates a partial understanding of concepts and skills associated with percent of change. The student finds the difference of the new and original amount by subtracting the smaller number from the larger number without concern of the order and incorrectly identifies the largest amount of decrease when comparing negative integers. The student applies the mathematical concept of integer comparison incorrectly which leads to an incorrect solution.
Problem Solving	Developing	Student A's problem-solving strategy displays a limited understanding of the underlying mathematical concept of percent change. The student is able to identify the percent change as positive and negative from the table. The student produces a solution relevant to the problem but does not confirm the reasonableness of the solution.
Communication and Reasoning	Developing	The student's reasoning or justification of solution steps contains misconceptions that the difference is always positive. The student provides limited evidence to support their argument. Student B uses limited mathematical language to partially communicate thinking with some imprecision.
Representations and Connections	Developing	Student A uses a limited numeric representation to model the percent of change. The representation is not labeled and is difficult to follow. The student makes a partial mathematical connection to the context of the problem.

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma

Name: Student B

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	Student B demonstrates a partial understanding of concept and the skills associated with calculating the percent change. Student C applies mathematical concepts and skills which lead to an incorrect solution. Student finds a percent decrease but classifies it as increase.
Problem Solving	Developing	Student B's problem-solving strategy displays a limited understanding of the underlying mathematical concept. The student has done individual calculations that produces a solution relevant to the problem but does not confirm the reasonableness of the solution nor completes the task.
Communication and Reasoning	Emerging	Student B provides no correct reasoning or justification of a final recommendation of what club the school board should cancel. The student does not provide evidence to support arguments and claims and uses no mathematical language to communicate thinking.
Representations and Connections	Emerging	Student B uses a representation that does not model the percent change and makes no mathematical connections to any final answer. Student may need additional time or supports.

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma

Name: Student C

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Proficient	Student C demonstrates an understanding of concepts and skills associated with task of percent change. The student applies the mathematical concepts and skills which lead to a valid and correct solution.
Problem Solving	Proficient	Student C's problem-solving strategy displays an understanding of the underlying mathematical concepts of percent change and conversions between fractions, decimals, and percent. The student produces a solution relevant to the problem and confirms the reasonableness of the solution.
Communication and Reasoning	Developing	Student C's reasoning or justification provides limited evidence to support the claim that the chess club should be canceled. Student D uses limited mathematical language that partially communicates thinking.
Representations and Connections	Proficient	Student C uses a numeric representation with accurate labels to explore and model the problem. The student makes a mathematical connection that is relevant to the context of the problem.

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma

Name: Student D

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	Student D demonstrates a partial understanding of concepts and the skills associated with calculating the percent change. Student E understands when the situation is an increase or decrease but does not correctly apply fraction to decimal to percent conversion which leads to an incorrect solution.
Problem Solving	Developing	Student D's problem-solving strategy displays a limited understanding that the relationship of the new and original amount determines whether there is an increase or decrease. The student produces a solution relevant to the problem but does not confirm the reasonableness of the solution.
Communication and Reasoning	Emerging	Student D does not provide evidence to support arguments and claims. The student does not connect their claims in the given data.
Representations and Connections	Proficient	Student D uses a numeric representation with accurate labels to explore and model the problem. The student makes a mathematical connection that is relevant to the context of the problem.

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma

Name: Student E

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Developing	Student E demonstrates a partial understanding of concepts and skills associated with task. The student recognizes the difference between the years; however, does not demonstrate any understanding of percent change. The student applies the concept of loss and gain which leads to an incomplete and incorrect solution.
Problem Solving	Developing	Student E's problem-solving strategy displays a limited understanding of the underlying mathematical concept percent change. The student produces a solution relevant to the problem but does not confirm the reasonableness of the solution to percent change.
Communication and Reasoning	Developing	Student E's reasoning is limited and contains misconceptions that the difference is enough when asking for change of percent. Student F provides limited evidence to support arguments and claims and uses limited mathematical language to partially communicate thinking.
Representations and Connections	Developing	Student E uses an incomplete representation of percent change to model the problem. Student F makes a partial mathematical connection in their answer.

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma

Name: Student F

Criteria	Performance Level (Advanced, Proficient, Developing, Emerging)	Rationale
Mathematical Understanding	Proficient	Student F demonstrates an understanding of concepts and skills associated with task. The student uses the ratio of the difference between the new and old value to the original amount to identify the change percent. Student A applies mathematical concepts and skills of fraction, decimal and percent conversions which leads to a valid and correct solution.
Problem Solving	Advanced	Student F's problem-solving strategy is efficient. The student calculates each club's percent of change in order to compare the percent of change. The problem-solving strategy displays an understanding of percent change. Student A produces a solution that is relevant to the problem.
Communication and Reasoning	Advanced	Student F's reasoning or justification is comprehensive. The student explains why they do not agree with the school board's request. The student consistently uses precise mathematical language to communicate thinking when converting the ratio to a decimal to percent.
Representations and Connections	Proficient	Student F uses a numeric representation, with accurate labels, to model the percent change of each club. The student makes a mathematical connection that is relevant to the context of the problem when giving the rationale of why the chess club should be canceled.

Anchor Paper Scoring and Rationales- Task: Principal's Dilemma