Graphic Organizer

- If students are unsure of what to write in each square, give them an example to work through and explain in each box.
- Refer students to Section 6.1 for the first four boxes in the flowchart, Section 6.2 for the fifth and sixth boxes, and Section 6.3 for the last two boxes.

Math Link: Wrap It Up!

Planning Notes

- To introduce the Math Link: Wrap It Up!, you may wish to show a video of people canoeing. Use a video that explains currents and the drag they create on a canoe, and how much energy a person exerts to keep the canoe in motion.
- Explain that adding the ages of each canoeist and substituting into the equation is a quicker way of solving the problem. Students could also substitute $a = 13$, $a = 15$, and $a = 48$, and add the results.

Common Errors

- Students may substitute the age value for C rather than a, since the equation is easier to solve for a.

R$_x$ Review what each variable represents.

- Students may choose an inappropriate scale for their graph.

R$_x$ Review appropriate intervals for the data. Stress the importance of keeping their graph a reasonable size.

The chart below shows the Rubric for the Math Link: Wrap It Up! and provides notes that specify how to identify the level of specific answers for this project.

Score/Level	Holistic Descriptor	Specific Question Notes
5 **(Standard of Excellence)**	❑ Applies/develops **thorough** strategies and mathematical processes for making **significant** comparisons/connections that demonstrate a **comprehensive** understanding of how to develop a complete solution ❑ Uses **efficient** and **effective** procedures that may contain a **minor mathematical error** that does not affect understanding ❑ Uses **significant** mathematical language to explain understanding and provides **in-depth** support for the conclusion	• provides a complete and correct solution **Note:** A complete and correct solution with weak communication in #1 still scores a 5.
4 **(Above Acceptable)**	❑ Applies/develops **thorough** strategies and mathematical processes for making **reasonable** comparisons/connections that demonstrate a **clear** understanding ❑ Uses **reasonable** procedures that may contain a **minor mathematical error** that may hinder the understanding in one part of a complete solution ❑ Uses **appropriate** mathematical language to explain understanding and provides **clear** support for the conclusion	• provides a complete response to the exercise with a missing or incorrect interpolation or extrapolation in #3 *or* • provides a complete and correct response with graphing errors (2 points incorrectly plotted) or incorrectly labelled axes
3 **(Meets Acceptable)**	❑ Applies/develops **relevant** strategies and mathematical processes for making **some** comparisons/connections that demonstrate a **basic** understanding ❑ Uses **basic** procedures that may contain a **major mathematical error** or **omission** ❑ Uses **common** language to explain understanding and provides **minimal** support for the conclusion	• correctly completes #1 and #2 *or* • correctly completes #2 and #3; minor errors may be present, but the solution demonstrates an understanding of the problem *or* • provides correct partial solutions to #1 to #3
2 **(Below Acceptable)**	❑ Applies/develops **some relevant** mathematical processes for making minimal comparisons/ connections that lead to a **partial solution** ❑ Uses **basic** procedures that may contain several major mathematical errors ❑ Communication is **weak**	• provides a correct and complete response to #1 and a correct start to #2; communication is present but may be weak *or* • provides a correct response to #2; the graph represents the information correctly, although it may lack some labels
1 **(Beginning)**	❑ Applies/develops an **initial start** that may be **partially correct** or could have led to a correct solution ❑ Communication is **weak** or **absent**	• provides a response to #1; communication may be minimal but some key elements of the problem are identified; an initial start to a table of values in #2 is evident; errors may be present *or* • provides a correct initial start to any part of the exercise