

Long Distance Plans

Connect Objectives:

- Students will be able to write the equations to describing the problem's condition. (Model a situation algebraically.)
- Students will be able to use algebraically reasoning to answer the questions.
- Students will be able to graph the equations and interpret the solution.
- Students will be to apply the Strategies for solving word problems.
- Problem solving/determining a way to organize data

Language Objectives:

- Students will able to use the following key vocabulary words to describe the situation, to interpret -explain and reasoning the solution from equation and graph what the words means.
- *Key Vocabulary:* increase, decrease, intersection, steeper, equation, interpret, variable, model, quantities, monthly fee

Higher Order Thinking:

Analyze the strategy to solve the word problem.

Material: calculator, think cards-questions,

proved the steps to solve word –problems

Student worksheet; graph paper

Procedure: hand out the word problem with the question:

Which is better to choice between two plans?

Ask the students to share the thinking.

Pair students. Let students take turns explaining how they tried solving the problem. If both pairs already know how to solve the problem and did so using the same strategy, get students thinking about how to write a function rule for the data. These ideas can be shared with the whole class later. Talk about ways to represent mathematical information such as equation, tables and graphs. Remind them about what the problem given us and what didn't. We know how much each plan charges, but we don't know for how many minutes.

Whole-Class Discussion

Let pairs share their work with the rest of the class. Let students come up to the board to write their different methods (tables, algebraic equations, graphs, etc). Using a table representing the data (see excel (xls) file on CRME website for table/graph), work with the class to come up with function rules for the table. Discuss how to get these function rules follow some steps to help those students who did not know.

Closure:

Exit slip: which is the better to choose?

Differentiation: think cards, proved the steps to solve word- problems