Aaron Cripe

Lesson Plan

Pre-Algebra 8-5 Rate of Change

Time: 50 minutes

Standards:

8.3.7 Demonstrate an understanding of rate as a measure of one quantity with respect to another quantity.

Objective:

After today’s lesson the entire class will be able to graph using the rate of change. Also I will expect my students to be able to find the rate of change of the equation. I will expect my students to be successful at finding rate of change. Also questions dealing with rate of change will appear on their chapter test, and they will be able to solve those correctly with at least 75% accuracy. I am hoping that some students will be higher than 75% accuracy rate.

Advanced Preparation:

The teacher needs to be fully competent on the material he/she is going to teach the students. The teacher needs to prepare the lesson in advance, and be able to provide extra examples on the spot if need be. The teacher needs to be able to answer any questions that may arise during the lesson. The teacher also needs to have modified assignments ready for any students with IEP’s.

Assessment:

The students have been assessed every night by their homework that they turn in. I look over the homework to see if there are any consistent problems that are being missed. The students are graded on participation for the homework. The students will take two mid-chapter quizzes before the chapter is over. At the end of the chapter there will be a chapter test. This test will include at least three questions for every section. Also the test will be divided evenly with questions from every section. My goal is to have every student get above an 80% on the chapter test. I understand that a goal of every student achieving 80% accuracy might be a goal that is not realistic; however I want that to be my goal so I have something to shoot for.
Step by Step Procedure (Sub Planning):

- In the Pre-Algebra binder, there will be a bellwork. The bellwork for this lesson is Check for Understanding for 8-3.
- Put the bellwork on the overhead and have it ready for when the students arrive to class. Have the students do all of the problems.
- Then give them around 5 or 10 minutes to work on the bellwork. When they are done make sure to go over every problem step by step. It is really important because this a time of review for the students.
- After that it is time to check the homework. Put on the overhead the answers to the homework (which I already have written out for you). Make sure that the students check every problem. Then it is time to go over the homework. Ask the students if they have any questions, and answer any questions that they have about the homework. They usually have around 3 questions. If they do not have any questions then it is important to choose a problem at random and solve it for them. They use this time as another review.
- Now it is time for the lesson.
- First it is very important that the students understand that the rate of change is the same thing as slope. It is simply change in y over change in x.
- It would be good to start the students with a simple example of a table, such as the one on page 393. Make sure that they understand that it is y over x.
- Then give them an example with a graph, where they have to first find two points and then find the slope. This should be review for them; however you will still have some students confused.
- The next part of the lesson is the toughest for the students. It is using the equation of direct variation. Explain that when y varies directly with x, then you can use the formula \( y = k \times x \). Where you simply plug in your x and y. Then it is a two step equation, explain that this is review. They all should know how to solve two step equations. Do the two step equation to solve for k, once you have k you need to plug it back into the original formula \( y = k \times x \). Go over several examples with positives and negatives.
- That is the lesson for today; make sure to ask the students if they have any questions.
- Homework assignment: P. 396-397 #’s 9-12 all, 14-17 all 24-25 all
- During the homework it is important that you walk around and help any students that have questions.

Modifications:

The students with IEP’s that keep them from doing the normal homework assignment will be given a modified one. The Modified assignment will still cover the same type of problems; however there will be a fewer number of problems. Hopefully the students will be more willing to try to complete the homework if they know they have a better chance of understanding it and completing it.
Self-Reflection: