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November 10, 2022 Round
10th Grade Geometry

Background

Last week we just finished up our unit on the "geometry essentials," which covered the building blocks of this course. At the beginning of this week, we started a brand-new unit on logical thinking, where we have been building the ability to think critically and logically when evaluating situations and problems. On Monday we started by playing logic games and thinking about brain teaser problems. We continued into Tuesday and Wednesday with if-then statements and talking about inductive and deductive reasoning through doing puzzles. Today will be the first day that we tie this in with our specific geometry concepts and skills, introducing the transversal intersecting two lines. We will be using our enhanced critical thinking skills to see if we can prove relationships between angles made by the transversal, and whether the relationships change if the lines are parallel or not. I'm hoping that the students will be able to put together some great ideas of how the relationships work using the things we've discussed this week about not assuming information and thinking of counterexamples that could show something false.

Today's Learning Focus

Today will be setting up the transversals and angle relationships. The focus for today isn't to exactly see instant mastery of the concepts, but rather to explore them and practice with them. I'm hoping students will be willing to ask each other questions and talk through different ideas for how some of these relationships work. I'm also looking for students to engage with the lesson and interact in class discussions, as much of this lesson will be focused on discussion and class problem solving. The practice worksheets for the last half/third of class will help students to work directly with the material and practice using what we learned to familiarize themselves. There are many practice sheets available to help build up confidence in identifying angle pairs and contextualizing them in real-world applications. We will be using the idea of a guitar with "fanned frets" (slanted frets) to contextualize these ideas with something that they can think back to if they ever get confused or stuck.

Thank you for attending my first round, I hope you enjoy yourself!

Learning-Centered Questions

1. I tried to set this lesson to a context outside of math related to something that both the students and I are interested in, which is music. Does the context of using a guitar help students to better understand the material? Does it confuse them any? Do you see students referring back to it later on? How does it increase or decrease en gagement? Record any instances of when students make discoveries about the new angle relationships we discuss today.

2. How do the notes help students out? Do you find students referring to the notes as they work through problems? Are they helping them out or are they still struggling with understanding some of the connections? I'm hoping to build more independent and problem-solving students, so I'm hoping they will check their notes and try to build understanding before coming to a teacher.

Practice-Centered Questions

3. One thing I've been struggling with is trying to balance all the diverse learning needs in my class. This class has many students with IEPs and 504s. Are students generally understanding things as we move along? Are students getting lost? Record evidence. Do the manipulatives of the tracing paper help students to explore and make connections easier?

4. Record evidence of students discussing with each other and working collaboratively during both the practice and the discovery sections of class. Are they asking each other questions? Are they helping each other out when needed? How are groups generally working?