

Activity Name	Greater than, Less than, Equal to
Activity Description	Students will be show two quantities that are in separate columns in a table. If students believe that the quantity shown in column A is greater than the quantity shown in column B, then they should hold up their card marked A. If they think the quantity shown in column B is greater than the quantity shown in column A, then they should hold up their card marked B. If students think that the quantity shown in column A is equal to the quantity shown in column B they should hold up the card with containing the equal sign. If students think that there is not enough information provided in order to tell which column contains the greater quantity, they should hold up the card with "?". [The card with the question mark does not mean the student does not know, it means that there isn't enough information to make a decision. If the student really does not know, they should give their best answer.]
Standards Addressed	In general terms, comparing quantities and variable substitution. The map to the state's adopted common core standards will be determined.
Materials	One set of four $A B = ?$ cards for each students Questions to be asked
Set-up	Prepare questions ahead of time to save time, though creating them on the fly could also work in some cases.
Prerequisite activities or prior knowledge required	variable discussion or prior knowledge about variables.
Process	<ul style="list-style-type: none"> • Distribute $A B = ?$ cards • Explain the type of problems that they will see, and how to hold up the cards • Begin with an easy problem as a demo; give students some time to process the question before asking to see the cards. This is so students that have the answer quickly do not have to keep their card in the air while others are figuring an answer; it also reduces the time that students will see each other's answers, which would reduce the effectiveness of polling the class.
Why this activity is selected for use	<ul style="list-style-type: none"> • This is a good quick assessment activity where I can get a general feel for how well a class knows a topic; It is used now with some easy variable problems, in a small part for students to answer variable problems, but to a larger part to get them familiar with this strategy which will be used frequently. Sometimes similar activities will use the smart response system, or Fast lane which is a game I created with Excel and use in all classes. • It models problems that students may find on standardized tests. I've heard that they took these off the SAT, but students may still encounter them in SAT prep books. Students will find them in the textbook and related resources so it is good for student to be familiar with these problems and know how to answer them.