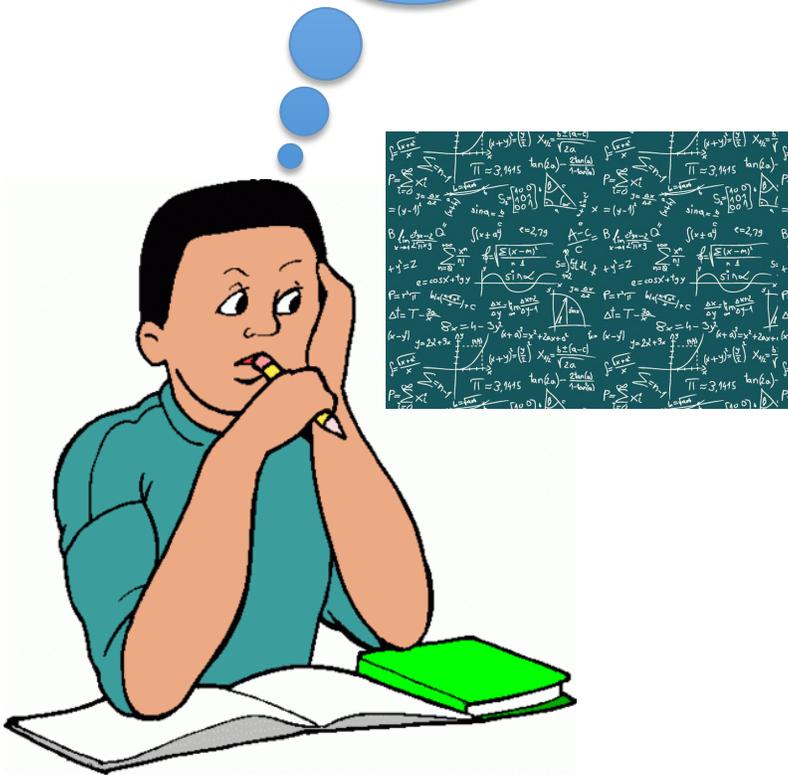


Math Practice #7: Look for and make use of structure

I find similarities between problems, and I use those similarities to help me solve them. I use what I learned in the past to help me understand new ideas. I break complex problems down into simpler problems that I know how to solve.



HOW TO SUPPORT

“How is this like the last problem (or recent problems) you solved? How is it different?”

“Can you reorganize the problem so that it looks more like something that you know how to solve?”

“How might you break this problem down into several smaller, simpler problems?”

“What are several different ways to think about the numbers and quantities in this problem? Is there a different way that you could think about it that might be more helpful?”

WHY THIS IS IMPORTANT

Being an effective learner involved using what we already know to make sense of new information. When we make meaningful connections, we will be able to understand, remember, and apply what we learn. Making use of structure in life means:

- *noticing how problems are alike*
- *using past experiences to help solve new problems*
- *starting on a big, overwhelming project by breaking it down into smaller, more manageable tasks*

WHAT TO EXPECT IN MATH CLASS

A variety of simple problems and more complicated versions of those problems for each concept.

Needing to remember previous lessons and concepts in order to build an understanding of new concepts.

Using several strategies to turn more complicated problems into simpler tasks.

WHAT TO DO IN MATH CLASS

- *Remember that many problems are somehow related to the problems just before them. Look for connections and relationships from problem to problem.*
- *Don't get lost in the details. Look at the big picture structure of the problem and develop a plan for solving.*
- *Try to combine some details to make the problem simpler.*
- *OR try to break the problem apart to turn it into something familiar.*
- *Find a different way to represent the problem to make it easier.*