

## Math Practice #8:

# Look for and express regularity in repeated reasoning

### WHY THIS IS IMPORTANT

Seeing patterns and developing shortcuts based upon those patterns can make life easier and can make us more efficient and productive people. It also helps us be more thoughtful people as we find lots of ways that things in our lives are connected. Looking for regularity in the real world means:

- Noticing tasks that we have to do over and over again
- Looking for creative ways to do those tasks in better ways
- Trying out shortcuts and seeing whether or not they are helpful
- Knowing the benefits and drawbacks of using shortcuts
- Making wise decisions about when shortcuts are appropriate to use

### WHAT TO EXPECT IN MATH CLASS

Problems that can be solved in many different ways.

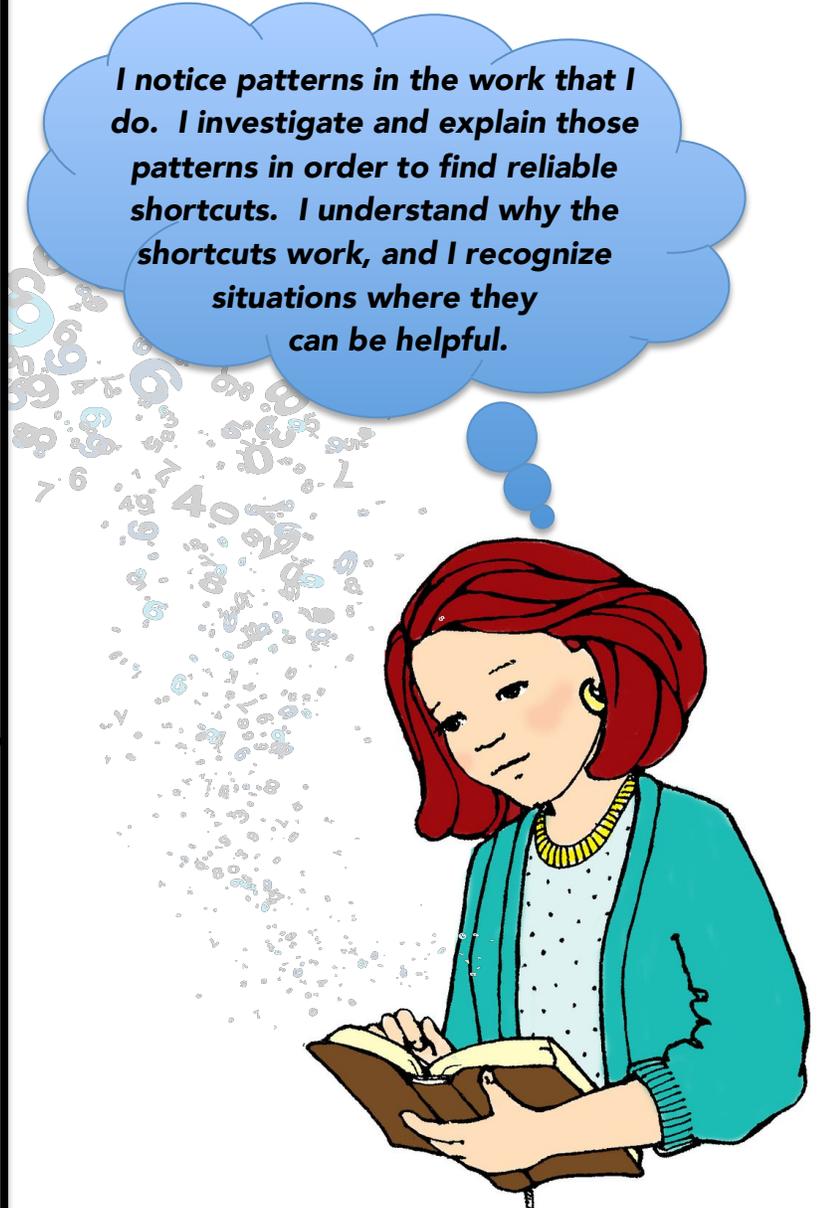
Challenges to look for shortcuts that will make the problem-solving process easier or more efficient.

Questions about when those shortcuts will be helpful and when they aren't appropriate.

### WHAT TO DO IN MATH CLASS

- Pay attention to the types of calculations that you are doing
- When you notice that you are doing the same thing over and over again, ask yourself if there might be a faster way to accomplish the same thing.
- When you think you find a shortcut, try to explain when the shortcut is helpful and how you know it will always work

**I notice patterns in the work that I do. I investigate and explain those patterns in order to find reliable shortcuts. I understand why the shortcuts work, and I recognize situations where they can be helpful.**



### HOW TO SUPPORT

- “What calculations are you doing over and over again?”
- “What patterns do you notice in those calculations?”
- “Is there a shortcut that you can think of to make your work easier or faster?”
- “Why do you think that shortcut will work?”
- “How will you know when to use that shortcut in other problems? What will you look for?”
- “Are there limitations to your shortcut? Are there times when you shouldn't use it or it might not work?”