

# **Ten Plus One: Strategies for Creating Deep, Complex Math Tasks**

Ten strategies...  
for creating deep math tasks

1. Write a story.  
*Create a story for a calculation or a real-world context for a math concept.*
2. Draw a picture.  
*Draw a picture or diagram that shows the meaning of a concept or calculation.*
3. Explain why.  
*Justify a prediction, claim, or answer using logic.*
4. Find another way.  
*Find a different strategy or another answer.*
5. Compare and contrast.  
*Compare and contrast expressions, shapes, patterns, strategies, representations, etc.*
6. Start with the answer.  
*Begin with the answer and find the "question."*
7. Remove information.  
*Make the original task more open-ended by removing words or numbers.*
8. Solve to learn.  
*Perform the original task as a problem before a method has been taught.*
9. Build a pattern.  
*Create or extend a pattern of numbers, equations, or shapes based on the original task.*
10. Ask "What if...?"  
*Change one or more elements of the original task, and observe the effects.*

...Plus One strategy  
for creating complex math tasks

Use *more...*

*digits, numbers, shapes, parts, steps, definitions, categories, relationships, etc.*

## Using Ten Plus One

It is important to remember that Ten Plus One is a *tool*. There are not a lot of rules that you must follow. If the strategies inspire you in any way to create meaningful, relevant mathematical challenges for your students, they are serving their purpose. At the same time, there are certain suggestions you may find helpful in using them effectively.

- Remember that the *new tasks* are the goal.  
The Ten Plus One strategies are tools to spur your thinking to create new tasks. Over time, you will learn to select the strategies that are best suited to particular circumstances.
- You may use the Ten Plus One strategies in any order.  
You may also omit strategies. Some of the later strategies take more practice to use and tend to produce more challenging tasks.
- Multiple strategies often work well in combination to create a single task.  
For example, Strategies 1, 2, and 3 usually make an excellent combination when the task is a basic computation.
- Different strategies may generate similar new tasks.  
For example, Strategies 7 and 9 may lead to similar tasks for certain concepts.
- A single strategy may generate more than one task.  
This is especially true of strategies 6, 7, 9, and 10.
- You may use the new tasks that you create in many ways.  
You may use a new task as the focus of a lesson, a pre- or post- assessment item, a small group activity, a homework assignment, an exit slip, a writing prompt, a quick intervention for a student who needs something more challenging, etc.
- Depth and complexity interact.  
Increasing the complexity of a task often (but not always) increases the depth. Offering different levels of complexity for the same task may help you differentiate for varying needs while maintaining the focus on a single concept for large group discussion.
- You may use the strategies to modify the original task *or* its underlying concept.  
Rather than focusing on the original task itself, you may sometimes have more success thinking about the underlying *purpose* of the task and applying a strategy to that.