We know that models - either concrete or representational - are useful in helping learners to either DISCOVER the abstract rules for arithmetic in **Z** that we reviewed recently or to MAKE SENSE of those rules (and maybe remember them better). Today, we studied some Thought Models, which would be considered representational.

To be efficient about what I ask you to write in your notes, here is one sample apiece of the types of tasks I often ask you to complete using our Thought Models.

1. Clown on a Tightrope - **See the written rules in your notes and Clown handout!**

   (a) Write the Clown's actions - including start and end position - as they act out the computation below. You MUST use the given computation - no rewriting using abstract rules that the Clown is supposed to help illustrate in the first place!

   $$(-5) - 3 - (-1) + 2 - 4$$

   (b) Write the complete number sentence represented by these Clown movements: *The Clown starts on* 6. *They face right and walk backward* 3 *steps. They turn to face left and walk backward* 7 *steps. Finally, they stay facing right and walk forward* 2 *steps.*

2. Temperature stories - **Again, refer to your notes for the rules governing these stories.**

   (a) Write a complete, integer number sentence represented by this story: *The temperature has been falling 7 degrees every hour in the lab container. How much hotter/cooler will it be in 4 hours?*

   (b) Also answer the question asked above, in a sentence.

(c) Write a contextually DIFFERENT temperature story that represents the same computation you wrote in part (a). (That is, your story here does NOT have falling temp.)

3. Create a Number Sentence Pattern leading to $(-2) + 3$. - **Again, check your notes for our guidelines.**