

# thought exercise

## 100 CHART

Our 100 Chart Thought Exercise supports learners in developing efficient ways to think about number in reference to 10. The Number Lab's 100 Chart is unique in that it is flipped. This arrangement provides an important model for thinking in which moving "up" the chart reflects an increase (rather than in the traditional chart where increasing is achieved by going "down" the chart).

The Number Lab's 100 Chart can be downloaded for free from our website and a Field Guide for the 100 Chart, with numerous examples and more support on implementation, can be purchased from our products page.

During this Thought Exercise, the prompts, like the ones shown below, are each read aloud three times. Learners work with partners to consider the prompts, using the 100 Chart to track thinking. It is important to read through all of the prompts, rather than stopping the class to ensure each partnership has "arrived correctly" at each value for each prompt. Read through all of the prompts 3 times in succession, and then conclude by having learners gather together in order to listen to a particular partnership share how they thought through each prompt.

Read each prompt 3 times...	Learners should move to...
1. Begin by finding three fives....	15
2. From there increase by 12....	27
3. Now, lose six....	21
4. Gain nine or increase nine....	30
5. Double that value....	60
6. Last, let's lose eight....	52

Read each prompt 3 times...	Learners should move to...
1. Begin by doubling 23....	46
2. From there, lose 10....	36
3. Now let's increase by 21....	57
4. Next let's lose 5....	52
5. Increase by 18....	70
6. The amount of 7's in that value....	10

Read each prompt 3 times...	Learners should move to...
1. Begin with four threes....	12
2. Then add half of twelve....	18
3. Now increase by eight....	26
4. Next increase by fourteen....	40
5. Find the number of 20's in that value....	2
6. Double that number	4

### Context of Instructional Design

This Thought Exercise was created for Red Band, a group of 2nd and 3rd graders who are in their first year of studying with us. These prompts were designed to support learners in developing more efficient ways of thinking about number by utilizing the structure of 10, which is clear on the 100 Chart. As an example, in order to increase by 12, a learner could gain 10 by moving up one row, and then gain 2 more by counting to the right two squares, rather than counting 12 by ones. If working to increase by 9, a learner could increase by 10 and lose 1. The 100 Chart Thought Exercise is used with all ages with increasing complexity, but it is particularly important in regards to building the foundational thinking of our youngest mathematicians.

the number lab