Number Lines Lesson 1
Creating a Number Line
Teacher Guide

Symbols and Concepts

- Left-pointing arrowhead
- Axis line
- Coordinate scale mark
- Right-pointing arrowhead

Objectives

The student will be able to:

- Read and write the symbols used to create number lines
- Recreate given number lines
- Label the scale marks on a number line
- Use a variety of labels for the scale marks including whole numbers, fractions, decimals, negative numbers, and large numbers

Teaching Tips

- Before opening any BRF files in Duxbury,
    - Go into the Global menu.
    - Select "**Formatted Braille Importer**."
    - Select the box for "**Read formatted braille without interpretation**" at the top of the window. This will ensure that nothing is changed when opening the BRF files.
- When creating number lines, a student should always use a braillewriter since number lines take up more than one line.
- The axis line between the scale marks can vary in length, but once the length between the first two scale marks is decided on, the same length of axis line should be used between the other scale marks on the same number line.
- Scale marks are also sometimes informally called hash marks or tick marks.
- Number lines produced by the student may vary from the answer key, but still be correct since the length of the axis line, number of scale marks, and the labels on the scale marks can vary.

- The "L1-NL-Problems-Only.brf" braille document may be used to supplement the lesson since it contains all of the examples in braille.
- For some students it may be helpful to compare number lines on the APH Number Line Device with number lines created in braille.
- In addition to recreating number lines within the focused lesson, there are optional games available for practicing. There is also a template for spinners. Here are some options for using this spinner template:
    - Option 1
        - Put a brass fastener/brad through the center of the spinner.
        - After you put the brad through the spinner, fold it back. But don't fold it all the way to the spinner. Leave ½ inch or so between the top of the brad and the part of the brad where you fold it back.
        - Turn the spinner over and pull the unbent part of the brad through so the ½ inch of the unbent brad shows.
        - Put the paper clip over the brad to attach it to the spinner and spin!
    - Option 2
        - Place a paper clip in the center of the spinner.
        - Place the pencil point so it touches the center of the spinner, but is also inside the paper clip.
        - Hold the pencil with one hand and spin the paper clip with the other hand!
    - Option 3
        - Open a paper clip so that it is an "L" shape.
        - Pierce the center of the spinner. Insert half of the clip under the spinner and the other half above. Keep the "L" shape.
        - Place another paper clip over the part sticking up. Spin!
    - Option 4 – Do a quick search on YouTube to find lots of other options for creating spinners.
- We maintain a list of commercially available materials that can be used to supplement instruction.

Optional Materials

- Dice
- Dominoes
- Playing cards