

Creating a Braille Number Line

Nemeth symbols and concepts addressed:

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

Objectives:

The student will be able to:

- 1) Read and write the symbols used to create number lines
- 2) Recreate given number lines
- 3) Label the scale marks on a number line
- 4) 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" and then check 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 brailewriter 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.
- 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.
 - Pull the unbent part of the brad through to the top of the spinner.
 - 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.
- Option 2.
 - Place a paper clip in the center of the spinner.
 - Place the pencil point in the center of the spinner and push the end of the paper clip so it rests behind the pencil point and spin!
- 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!

Materials Commercially Available:

Materials that could be used from the American Printing House for the Blind (www.aph.org) include

- *Game Kit: Spinner Assembly (61-131-143), Replacement part for Game Kit (1-08440-00)
- *MathBuilders, Unit 8: Data Collection, Graphing, and Probability-Statistics; Large Print Kit includes braille student materials and large print Teacher's Guide (7-03565-00); Braille Kit includes braille student materials and braille Teacher's Guide (7-03565-00)
- Math Drill Cards in Braille and Large Print: Number and Math Sign Cards (1-03551-00)
- * Number Line Device (1-03480-01)

* *WARNING: CHOKING HAZARD -- Small Parts. Not intended for children ages 5 and under without adult supervision.*

Other Optional Materials:

- Dice
- Dominoes
- Playing cards