

# Graphing Points on a Braille Number Line

## *Nemeth symbols and concepts addressed:*

- Left-pointing arrowhead
- Axis line
- Coordinate scale mark
- Right-pointing arrowhead
- Solid, filled-in, or closed circle

## *Objectives:*

The student will be able to:

- 1) Read and write the symbols used to create number lines with graphed points
- 2) Label the scale marks on a number line
- 3) Graph points on a number line
- 4) Interpret points on a number line
- 5) 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 graphing 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.
- Points should always be graphed above the number line.
- In addition to graphing points on number lines within the focused lesson, there are two activities and optional games available for practicing.
- 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.

### *Materials Commercially Available:*

Materials that could be used from the American Printing House for the Blind ([www.aph.org](http://www.aph.org)) include

- \* Number Line Device (1-03480-01)
- Math Drill Cards in Braille and Large Print: Number and Math Sign Cards (1-03551-00)

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

### *Other Optional Materials:*

- Dice
- Dominoes
- Playing cards