

# Number Lines Lesson 3

## Graphing Inequalities

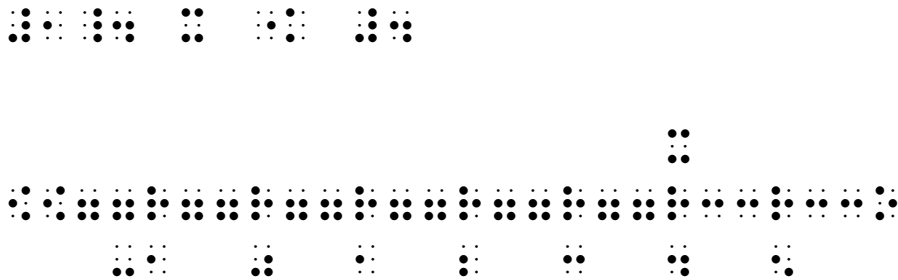
### Less Than Graphing Activity Answer Key

Graph each inequality on a new number line. Number your answers and include the original problem. Notice that they all involve the symbol for less than ( $<$ ) or the symbol for less than or equal to ( $\leq$ ). Therefore, you will need to begin each number line with two left-pointing arrowheads (or a bold left-pointing arrowhead). [There is a braille answer document "L3-NL-LT-Activity-A-Answers.brf" that can be used to independently check answers.]

1.  $x$  is less than 4.

$$x < 4$$

Answer:

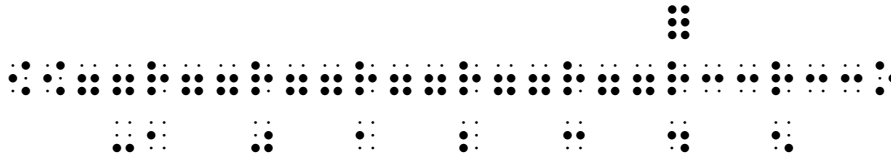


A braille number line is shown. The scale marks are in increments of 1 starting with -1 and ending with 5, and an additional left-pointing arrowhead is added. An open circle is placed above the scale mark at 4 and shading goes from just to the right of the 2<sup>nd</sup> left-pointing arrowhead to just to the left of 4.

2.  $x$  is less than or equal to 4.

$x \leq 4$

Answer:

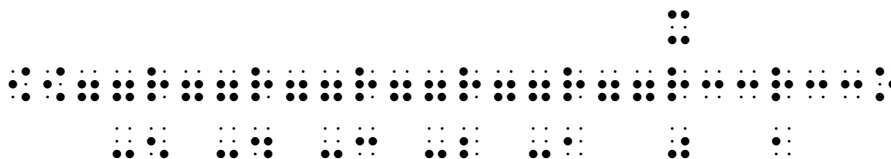


A braille number line is shown. The scale marks are in increments of 1 starting with -1 and ending with 5, and an additional left-pointing arrowhead is added. A closed circle is placed above the scale mark at 4 and shading goes from just to the right of the 2<sup>nd</sup> left-pointing arrowhead to just to the left of 4.

3.  $x$  is less than 0.

$x < 0$

Answer:

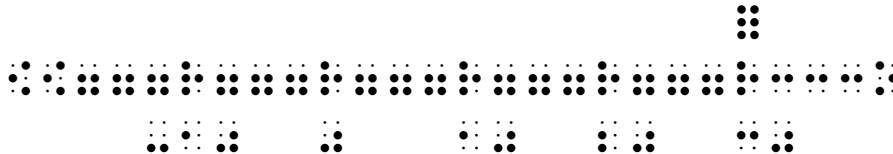
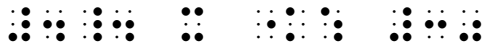


A braille number line is shown. The scale marks are in increments of 1 starting with -5 and ending with 1, and an additional left-pointing arrowhead is added. An open circle is placed above the scale mark at 0 and shading goes from just to the right of the 2<sup>nd</sup> left-pointing arrowhead to just to the left of 0.

4.  $x$  is less than or equal to 30.

$$x \leq 30$$

Answer:

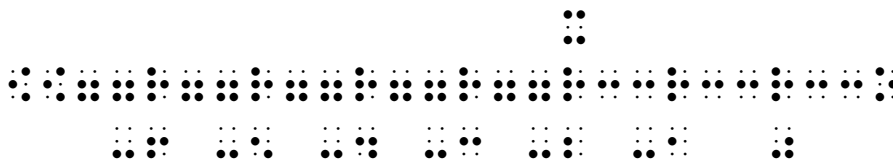
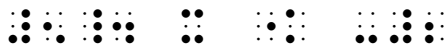


A braille number line is shown. The scale marks are in increments of 10 starting with -10 and ending with 30, and an additional left-pointing arrowhead is added. A closed circle is placed above the scale mark at 30 and shading goes from just to the right of the 2<sup>nd</sup> left-pointing arrowhead to just to the left of 30.

5.  $x$  is less than negative 2.

$x < -2$

Answer:

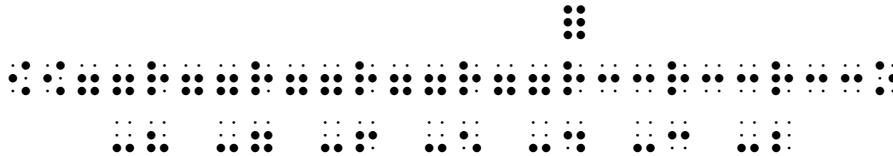


A braille number line is shown. The scale marks are in increments of 1 starting with -6 and ending with 0, and an additional left-pointing arrowhead is added. An open circle is placed above the scale mark at -2 and shading goes from just to the right of the 2<sup>nd</sup> left-pointing arrowhead to just to the left of -2.

6.  $x$  is less than or equal to negative 4.

$$x \leq -4$$

Answer:



A braille number line is shown. The scale marks are in increments of 1 starting with -8 and ending with -2, and an additional left-pointing arrowhead is added. A closed circle is placed above the scale mark at -4 and shading goes from just to the right of the 2<sup>nd</sup> left-pointing arrowhead to just to the left of -4.