Representing Numbers Using a Number Line

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Let's work through an example of putting numbers in order on a number line.

Order the numbers 11,235.70, 11,235.50, and 11,234.90 least to greatest using a number line. The first step is to create a number line. The three values fall between 11,234 and 11,236. We will put 11,235 as the midway mark. Let's break each whole into tenths. To keep it even, we can break it in half and then break each into five. The second step is to plot each value and label as we plot. First we'll plot 11,235.70. We go past 11,235. Seventy-hundredths is equivalent to seven tenths. So let's count 7 tenths – 1, 2, 3, 4, 5, 6, 7. I plot right here and label, 11,235.70. Next we will plot 11,235.50. We go to 11,235. Fifty-hundredths is equivalent to five tenths, so we count 1, 2, 3, 4, 5 tenths and we plot. Now we label 11,235.50. Lastly we will plot 11,234.90. We go to 11,234. Ninety-hundredths is equivalent to nine tenths so we count 9 tenths, and we plot and we label 11,234.90. Now that all three of our values are on the number line, we are ready for our last step – our last step is to order the values using the number line. On a number line, the smallest values are always on the left. As we work our way to right the values get larger. So to put these values in order from least to greatest we need to put them in order as they fall from left to right on the number line. The smallest value is going to be 11,234.90, the next value is going to be 11,235.50, and the largest value is going to be 11,235.70.

In conclusion, plotting values on a number line is helpful for ordering values because a number line is always in order from least to greatest as we move from left to right.