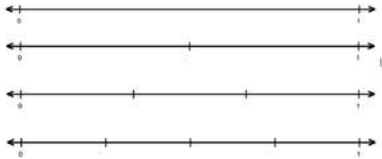
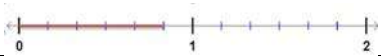
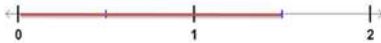

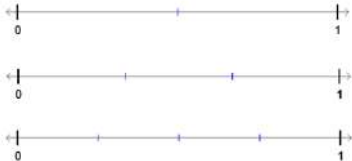


Content Standard		<p><b>MAFS.3.NF</b> <i>Number and Operations – Fractions</i></p> <p><b>MAFS.3.NF.1</b> <i>Develop understanding of fractions as numbers.</i></p> <p><b>MAFS.3.NF.1.2</b> Understand a fraction as a number on the number line; represent fractions on a number line diagram.</p> <p><b>MAFS.3.NF.1.2a</b> Represent a fraction <math>\frac{1}{b}</math> on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into <math>b</math> equal parts. Recognize that each part has size <math>\frac{1}{b}</math> and that the endpoint of the part based at 0 locates the number <math>\frac{1}{b}</math> on the number line.</p> <p><b>MAFS.3.NF.1.2b</b> Represent a fraction <math>\frac{a}{b}</math> on a number line diagram by marking off <math>a</math> lengths <math>\frac{1}{b}</math> from 0. Recognize that the resulting interval has size <math>\frac{a}{b}</math> and that its endpoint locates the number <math>\frac{a}{b}</math> on the number line.</p>
Assessment Limits		<p>Denominators limited to 2, 3, 4, 6, 8.          Models restricted to number lines starting at 0.</p> <ul style="list-style-type: none"> <li>Part A: number line interval from 0 to 1.</li> <li>Part B: number lines can extend from 0 to 1+.</li> </ul>
Calculator		No
Acceptable Response Mechanisms		<p>Equation Response          Graphic Response – Drag and drop, Drawing/Graphing, Hot Spot          Multiple Choice Response          Multi-Select Response</p>
Context	No context	
Example		
Context	<p>Recognize and represent unit fractions and non-unit fractions on number lines:</p> <ul style="list-style-type: none"> <li>Number lines limited to the interval 0 to 2</li> <li>Unit fractions and non-unit fractions less than 1 with denominators of 2, 3, 4, 6, 8</li> <li>Non-unit fractions greater than 1 limited to halves and fourths</li> <li>1 -2 fractions represented or referenced in the item</li> </ul>	
Context easier	<p>Given number lines limited to the interval 0 to 1 with scale increments of halves, thirds, and fourths.</p> <p>Unit fractions and non-unit fractions less than 1 limited to <math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>, and <math>\frac{1}{4}</math>.</p> <p>Only 1 fraction represented or referenced in the item.</p>	
Context more difficult	<p>Number lines can extend beyond the interval 0 to 2.</p> <p>Any fraction less than or greater than 1 with denominator 2, 3, 4, 6 or 8.</p> <p>More than 2 fractions may be represented or referenced in the item.</p>	

Sample Item Stem	Response Mechanism	Notes, Comments
<p>Which number line is divided into thirds?</p> 	<p>Multiple Choice Response</p>	
<p>Which fraction is represented by the total length marked on the number line shown?</p> 	<p>Equation Response</p>	
<p>What fraction is represented by the length marked on the number line shown?</p> 	<p>Equation Response</p>	
<p>What fraction is represented by the total length marked on the number line?</p> 	<p>Equation Response</p>	
<p>Look at the number lines shown.</p> <p>Select the number line that can be used to correctly plot the fraction <math>\frac{3}{4}</math>. Then, correctly plot the fraction on the selected number line.</p> 	<p>Graphic Response – Drag and Drop, Hot Spot</p>	