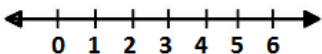
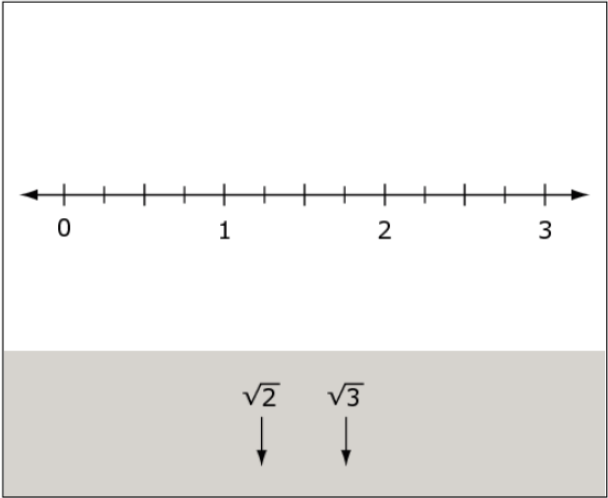


Content Standard	<p><b>MAFS.8.NS. Number Systems</b></p> <p><b>MAFS.8.NS.1</b> Know that there are numbers that are not rational, and approximate them by rational numbers.</p> <p><b>MAFS.8.NS.1.2</b> Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., <math>\pi^2</math>). For example, by truncating the decimal expansion of <math>\sqrt{2}</math>, show that <math>\sqrt{2}</math> is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</p>	
Assessment Limits	<p>All irrational numbers may be used, excluding <math>e</math>. Irrational expressions should only use one operation.</p>	
Calculator	No	
Item Types	<p>Equation Editor GRID Multiple Choice Multiselect Open Response</p>	
Context	No context	
Sample Item		Item Type
What is the approximate value of $\sqrt{3}$ , to the nearest whole number?		Equation Editor
<p>What is the approximate value of <math>\sqrt{12}</math>?</p> <p>A. 2 B. 3.5 C. 4.5 D. 6</p>		Multiple Choice
<p>A number line is shown.</p> <p>Place the following numbers in the proper location on the number line.</p>  <ul style="list-style-type: none"> <li>• <math>\sqrt{4}</math></li> <li>• <math>\sqrt{9}</math></li> <li>• <math>\sqrt{25}</math></li> </ul>		GRID

Sample Item	Item Type
<p data-bbox="191 262 581 338">Drag the numbers shown to their approximate locations on the number line.</p> <div data-bbox="620 254 1224 749"><p>The image shows a horizontal number line with arrows at both ends. It is marked with integers 0, 1, 2, and 3. Between each integer, there are four smaller tick marks, dividing each unit into five equal intervals of 0.2 units each. Below the number line, there is a gray rectangular box. Inside this box, the expressions <math>\sqrt{2}</math> and <math>\sqrt{3}</math> are written. Below each expression is a small downward-pointing arrow, indicating that these numbers are to be placed on the number line above them.</p></div>	GRID