

Subject: Math-Quarter 1	Grade: 8	Strand: Number Sense
<b>Standard: 8.NS.2: Use rational approximations of irrational numbers to compare the size of irrational numbers, plot them approximately on a number line, and estimate the value of expressions involving irrational numbers.</b>		
<b>4.0</b>	Student demonstrates a deep understanding by consistently extending work beyond Level 3.	<b>Sample Task(s)</b>
		Drag each number to its approximate location on the number line. Number line from 0 to 6 divided into fourths, between each whole number. Place $\sqrt{7}$ , $\sqrt{14}$ and $\sqrt{22}$ on number line.
<b>3.5</b>	<i>Student has consistently met Level 3 requirements, but occasionally demonstrates the ability to successfully work beyond.</i>	
<b>3.0</b>	<p><b>The student demonstrates proficiency on the grade level standard by:</b></p> <ul style="list-style-type: none"> <li>● Identifying the approximated value of an irrational number</li> <li>● Estimating values of expressions that include irrational values.</li> <li>● Plotting irrational numbers on a number line.</li> </ul> <p><b>The student is consistently able to apply the grade level concepts and skills above.</b></p>	<b>Sample Task(s)</b>
		<p>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> <p>Drag each number to its approximate location on the number line. Number line from 0 to 6 divided into halves between each whole number. Place <math>\sqrt{5}</math>, <math>\sqrt{13}</math> and <math>\sqrt{23}</math>.</p>
<b>2.5</b>	<i>Student has demonstrated an understanding of the concepts and skills in Level 2, as well as some success on Level 3 concepts and skills.</i>	
<b>2.0</b>	<p><b>The student is demonstrating success on the following foundational concepts and skills:</b></p> <ul style="list-style-type: none"> <li>● Perfect squares</li> <li>● Square roots of numbers</li> <li>● Estimating square roots</li> </ul>	<b>Sample Task(s)</b>
		What is the approximate value of $\sqrt{3}$ , to the nearest whole number?
<b>1.5</b>	<i>Student has independently demonstrated some success on the foundational concepts and skills.</i>	

<b>1.0</b>	<b>The student can demonstrate some success on the foundational concepts and skills but requires support to do so.</b>	
<b>0.0</b>	<b>There is no evidence of success on the foundational concepts and skills, even with support.</b>	