

Unit 8: Irrational Numbers		
4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.	
	3.5	<i>In addition to score 3.0 performance, partial success at score 4.0 content</i>
3.0	Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational. (8.EE.A.2) - I can evaluate Square Roots of numbers. - I can evaluate Cube Roots of numbers. - I can demonstrate that square roots represent perfect squares. - I can demonstrate that cube roots represent perfect cubes. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number. (8.NS.A.1) - I can write a fraction as a repeating decimal. - I understand that every number has a decimal expansion. - I can write a repeating decimal as a fraction. 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. (8.NS.A.2) - I can find a decimal approximation for square roots or cube roots who are not perfect squares or cubes - When I have a non-perfect square root, I can reason about which two whole numbers it is between. - When I have a non-perfect cube root, I can reason about which two whole numbers it is between.	
	2.5	<i>No major errors or omissions regarding score 2.0 content and partial success at score 3.0 content</i>
2.0	The student will perform basic processes - I can identify perfect squares and perfect cubes - I can identify the symbol used for square root and cube root. The student will perform basic processes - I can define rational numbers. - I can define irrational numbers. - When given a pair of numbers written as a decimal and a fraction, I can identify they are equivalent. - I can identify when a decimal is repeating The student will perform basic processes - I know what an irrational number is and can give an example. - I know what a rational number is and can give an example. - I can identify the difference between perfect and non-perfect square roots. - I can identify the difference between perfect and non-perfect cube roots.	
	1.5	<i>Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content</i>
1.0	With help, partial success at score 2.0 content and score 3.0 content	
	0.5	<i>With help, partial success at score 2.0 content but not at score 3.0 content</i>
0.0	Even with help, no success	