Content: Math	Grade Level: 8th

Standard: 8.EE.2

Use square root and cube root symbols to represent solutions to equations of the form x² = p and x³ = 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.

I can statements:
- Use square root symbols to represent solutions to equations in the form x² = p where p is a positive rational number.
- Use cube root symbols to represent solutions to equations in the form x³ = p where p is a positive rational number.
- Recognize that squaring a number and taking the square root of a number are inverse operations.
- Recognize that cubing a number and taking the cube root of a number are inverse operations.
- Evaluate square root of a perfect square.
- Evaluate the cube roots of a perfect cube.
- Explain why the square root of a non-perfect square is irrational.

Score 4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.	Sample Activities
		• $5x^3 + 2x^2 - 10 = 2x^2 + 10$
	3.5 In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	**The student:** • Use inverse operations to solve $x^2 = p$ and $x^3 = p$ equations where p is a positive rational number. • Explain why the square root of a non-perfect square is irrational. **The student exhibits no major errors or omissions.**	• $x^2 = 6$ • $y^3 = 30$ • $\left(\frac{1}{3}\right)^3$ • $\sqrt[3]{\frac{1}{27}}$ • What is the side length of a square with an area of 49 ft²? • Is $\sqrt{10}$ rational or irrational? Explain why.
	2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.	

Score 2.0	**There are no major errors or omissions regarding the simpler details and processes as the student:**
	• recognizes or recalls specific terminology, such as:
	  o square/square root
	  o cube/cube root
	• performs basic processes, such as:
	  o Evaluate square root of a perfect square.
	  o Evaluate the cube roots of a perfect cube.
	
	However, the student exhibits major errors or omissions regarding the more complex ideas and processes.
		• $\sqrt{16}$
		• 4^2
		• $\sqrt[3]{125}$
		• Give an example of a number that is a perfect square.

	1.5 Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.	
Score 1.0	**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**	
	0.5 With help, a partial understanding of the 2.0 content, but not the 3.0 content.	
Score 0.0	**Even with help, no understanding or skill demonstrated.**	