

Any standard **highlighted in yellow** has been determined by our WCSD teachers, district and state experts as essential for students to master.

Strand: I can extend the properties of exponents to rational exponents (10.N.RN 1-2)			
Strand: I can use properties of rational and irrational numbers. (10.N.RN 3)			
Standard 10.N.RN.1: I can explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can define the meaning of a rational exponent. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> rational exponent, radical, radicand, index, nth root, scientific notation 	<p>Question Stems</p> <ul style="list-style-type: none"> How did you solve the problem? Can you explain what you've done so far? Why does your answer seem reasonable? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>
Standard 10.N.RN.2: I can rewrite expressions involving radicals and rational exponents using the properties of exponents.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can convert radical notation to rational exponent notation and vice-versa. I can extend the properties of integer exponents to rational exponents and use them to simplify expressions. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> rational exponent, radical, radicand, index, nth root, scientific notation, simplest form of radical, like radicals 	<p>Question Stems</p> <ul style="list-style-type: none"> Use math words to describe your process in solving the problem. What strategy did you use? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFAs</u>

Strand: I can extend the properties of exponents to rational exponents (10.N.RN 1-2)			
Strand: I can use properties of rational and irrational numbers. (10.N.RN 3)			
Standard 10.N.RN.3: I can explain why sums and products of rational numbers are rational or irrational.			
<p style="text-align: center;">Learning Targets</p> <ul style="list-style-type: none"> • I can simplify radical expressions. • I can add, subtract, and multiply real numbers • I can explain why adding and multiplying two rational numbers results in a rational number. • I can explain why adding a rational number to an irrational number results in an irrational number (i.e. $2 + \sqrt{2} = 3.1414213562$) • I can investigate and explain why multiplying a nonzero number to an irrational number results in an irrational number. 	<p style="text-align: center;">Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> • rational, irrational 	<p style="text-align: center;">Question Stems</p> <ul style="list-style-type: none"> • Given a right triangle whose hypotenuse is irrational, find measures for legs where: 1) both legs are rational 2) both legs are irrational 3) one leg is irrational and one leg is rational • What are the key points or big ideas in this concept? 	<p style="text-align: center;">Possible Assessments</p> <ul style="list-style-type: none"> • <u>District CFAs</u>