## Quizlet

## M2 - Unit 4 Rational and Radical Equations

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Addition/Subtraction Property of Exponents	When adding or subtracting values raised to exponents, you can only combine terms with the same base and exponent.	18. Raising a Quotient to a Power Property of Exponents	For every nonzero number a and b and integer n, $(a/b)^n = a^n/b^n$
2. Base	A number that is raised to a power	92 Rationalize the Denominator	Steps taken that involves transforming a quotient to remove a radical in the denominator.
3. Branch	Each piece of a discontinuous graph.		
4. Combined Variation	A relation in which one variable varies with respect to each of two or more variables.	20. Reciprocal Function	Belongs to the family whose parent function is $f(x)=1/x$ where $x\neq 0$ . Can be written in the form $f(x)=(a/x - h) + k$ , where $a\neq 0$ and $x\neq h$ .
5. Dividing Powers Property of Exponents with the Same Base	For every nonzero number a and integers m and n, (a^m)/a <sup>n</sup> = a^(m-n)	21. Scientific Notation	A number written as the product of two factors in the form $a^*10^n$ , where n is an integer and $1 \le a < 10$ .
6. Extraneous Solutions	Answers that do not work as solutions to an equation.	22. Square Root Equation	An equation that has a variable in a radicand with index 2 or has a variable with a rational exponent of ½.
7. Index	In nth roots, the value of n in the symbol "√ indicates to what root the value under the radicand is being taken.	23. Square Root Function	A function that can be written in the form $f(x) = a\sqrt{(x-h)} + k$ where $a \neq 0$ . The domain of a square root function is all real numbers $x \ge h$ .
8. Inverse Variation	A relation represented by an equation of the form $xy=k$ , $y = x/k$ , or $x = y/k$ , where $k \neq 0$ .	24. Zero as an Exponent	For every nonzero number a, $a^0 = 1$
9. Joint Variation	A relation in which one variable varies directly with respect to each of two or more variables.		
<ul> <li>Multiplication</li> <li>Property of</li> <li>Exponents with the</li> <li>Same Base</li> </ul>	For every nonzero number a and integers m and n, a^m * a <sup>n</sup> = a^(m+n)		
n. Negative Exponents Property	For every nonzero number a, $a^{-n} = 1/a^n$		
12. Powers of Powers Property of Exponents	For every nonzero number a and integers m and n, $(a^m)^n = a^m)$		
13. Radical Equation	An equation that has a variable in a radicand or has a variable with a rational exponent.		
14. Radical Expression	Expression containing a radical.		
15. Radical Function	A function that can be written in the form $f(x) = a \sqrt[n]{(x-h)} + k$ where $a \neq 0$ . For even values of n, the domain is the real numbers $x \ge h$ .		
16. Radicand	The expression under a radical sign.		
17. Raising a Product to a Power Property of Exponents	For every nonzero number a and b and integer n, (ab) <sup>n</sup> = (a <sup>n</sup> )(b <sup>n</sup> )		