Additional Problems: Rational & Irrational Numbers

**Properties of Rational Exponents**

1. Use the Negative Exponent Rule to generate an equivalent expression to .
2. Use the Negative Exponent Rule to generate an equivalent expression to .
3. Solve the following equation: = . What is the missing value?
4. Solve the following equation: = . What is the missing value?
5. Using the properties of exponents, which expression is equivalent to × ?
6. Solve the following equation with a rational exponent: .
   1. 81
   2. 9
   3. 729
   4. 3
7. Solve the following equation with a rational exponent:
   1. 32
   2. 4
   3. 1024
   4. 2
8. Solve the following equation with a rational exponent: = 16. What is the value of x?
9. Solve the following equation with a rational exponent: = 27. What is the value of x?
10. Use the quotient property to write an equivalent expression for .