**Unit 3: Rational Exponents and Radicals Video Notes Sheet**

**Please follow along with the video on my website and complete the following notes.**

* $\sqrt{ }$→ This symbol is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_. Not a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Label the radicand, radical, and index as done in the video for this cube root: $\sqrt[3]{8}$
* The word “rational” means \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Ex.)** Write $4^{1/2}$ in radical form: \_\_\_\_\_\_\_\_\_\_\_\_. What does this simplify to? \_\_\_\_\_\_\_\_

 What is the index? \_\_\_\_\_\_\_\_ What is the exponent? \_\_\_\_\_\_\_

**Ex.)** Write $\sqrt[5]{x^{3}}$in rational exponent form: \_\_\_\_\_\_\_\_\_\_\_\_.

 What is the index? \_\_\_\_\_\_\_\_\_ What is the exponent? \_\_\_\_\_\_\_

**Ex.)** Write $8x^{2/3}$in radical form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Why is the 8 not supposed to be under the radical?

**Ex.**) Simplify $x^{1/4}⋅x^{2/3}$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Complete the following practice problems and turn in!





