CC. Standard 8.EE.2 **Radicals and Integer Exponents** Unit 2 Day 1

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| **Important Vocabulary** |
| **Squares:** |  |
| **Square Roots:** |  |
| **Cubes:** |  |
| **Cube Roots:** |  |
| **Rational:** |  |
| **Irrational:** |  |
| **Radical Numbers:** |  |

**Listing Perfect Squares and Perfect Cubes**

List all the perfect squares from 1 to 144:

12 =

22 =

32 =

42 =

52 =

62 =

72 =

82 =

92 =

102 =

112 =

122 =

List all the perfect cubes from 1 to 125 (hint use prime factoring):

13 =

23 =

33 =

43 =

53 =

What is the inverse of a Square:

What is the inverse of a Cube:

**Differences Between Rational and Irrational Numbers**

Estimate the value of each square or cube root.

* All non perfect square roots and cube roots are irrational.

**Applying Area and Volume**

1. If the area of a square rectangle is √ 9/16 cm2 what is the length of its side?
2. Find the side of a cube with a volume of 0.125 in3. .

**Order of Operations with Exponents and Roots**

Simplify each of the following. Use order of operations to solve each.

1.

**Solving for Variables**

Solve for each of the following. Use your knowledge of square/cubes and roots.

**Real-Life Problems: Geometric Figures**

Solve for each of the following. Show all work.