

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

**Section 7-1: Radical Expressions**

**Warm-up:**

*Factor the following:*

1) 121

2) 100

3)  $x^2 - 25$

4)  $x^2 + 20x + 100$

**Square Roots:**

- \_\_\_\_\_ has a square root of \_\_\_\_\_ because \_\_\_\_\_
- \_\_\_\_\_ has a square root of \_\_\_\_\_ because \_\_\_\_\_
- Numbers that would not have real square roots would be....

**THINGS TO CONSIDER:**

- We will revisit this idea a little later in the year.

- **VOCAB:** A Principle Square Root is a \_\_\_\_\_.

*Examples would include:*

- **VOCAB:** *Radical Expressions*

*Examples would include:*

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**Section 7-1: Radical Expressions**

➤ EXAMPLE PROBLEMS:

1)  $\sqrt{121}$

2)  $\sqrt{100}$

3)  $\sqrt{(x-2)^2}$

4)  $\sqrt{x^2 + 20x + 100}$

5)  $\sqrt{(2x)^2}$

6)  $\sqrt{4}$

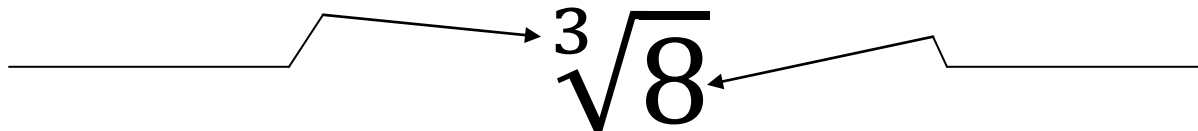
7)  $\sqrt{(2x+7)^2}$

8)  $\sqrt{x^2 + 10x + 25}$

**Odd and Even Roots:**

- We can find more than just the square roots, we can find 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, etc.. roots.
- \_\_\_\_\_ has a cube root of \_\_\_\_\_ because \_\_\_\_\_
  - \_\_\_\_\_ has a cube root of \_\_\_\_\_ because \_\_\_\_\_

**NOTATION:**



This is read as, “the \_\_\_\_\_ root of \_\_\_\_\_.”

**THINGS TO CONSIDER:**

- Why can we get negative cube roots? (Hint: [negative #] \* [negative #] = ? )

➤ Odd number roots –

➤ Even number roots –