

### Warm Up 3.8

Name \_\_\_\_\_ Period \_\_\_\_\_

<p style="text-align: center;"><i>Example 1: Simplify <math>\sqrt{20}</math></i></p> $\sqrt{20} = \sqrt{4 \cdot 5} = \sqrt{2 \cdot 2 \cdot 5} = 2\sqrt{5}$	<p style="text-align: center;"><i>Example 2: Simplify <math>\sqrt[5]{96}</math></i></p> $\sqrt[5]{96} = \sqrt[5]{2^5 \cdot 3} = 2\sqrt[5]{3}$
--	---

Simplify the following radical expressions

- |                    |                   |                   |
|--------------------|-------------------|-------------------|
| 1. $\sqrt{40}$     | 2. $\sqrt{50}$    | 3. $\sqrt[3]{16}$ |
| 4. $\sqrt{72}$     | 5. $\sqrt[4]{81}$ | 6. $\sqrt{32}$    |
| 7. $\sqrt[5]{160}$ | 8. $\sqrt{45}$    | 9. $\sqrt[3]{54}$ |

10. Describe the different types of numbers that are part of the Real number system. You're your notebook and write in it how the number systems fit together. (i.e. Whole numbers "W", Integers "Z", Rational "Q", Irrational "Q")

### Warm Up 3.8

Name \_\_\_\_\_ Period \_\_\_\_\_

<p style="text-align: center;"><i>Example 1: Simplify <math>\sqrt{20}</math></i></p> $\sqrt{20} = \sqrt{4 \cdot 5} = \sqrt{2 \cdot 2 \cdot 5} = 2\sqrt{5}$	<p style="text-align: center;"><i>Example 2: Simplify <math>\sqrt[5]{96}</math></i></p> $\sqrt[5]{96} = \sqrt[5]{2^5 \cdot 3} = 2\sqrt[5]{3}$
--	---

Simplify the following radical expressions

- |                    |                   |                   |
|--------------------|-------------------|-------------------|
| 1. $\sqrt{40}$     | 2. $\sqrt{50}$    | 3. $\sqrt[3]{16}$ |
| 4. $\sqrt{72}$     | 5. $\sqrt[4]{81}$ | 6. $\sqrt{32}$    |
| 7. $\sqrt[5]{160}$ | 8. $\sqrt{45}$    | 9. $\sqrt[3]{54}$ |

10. Describe the different types of numbers that are part of the Real number system. You're your notebook and write in it how the number systems fit together. (i.e. Whole numbers "W", Integers "Z", Rational "Q", Irrational "Q")