

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 4.2**

Express an entire radical as a simplified mixed radical and vice versa.

Multiple Strategies exist for evaluating radicals.

$$\sqrt[3]{8 \cdot 27} =$$

Direct (with a calculator)

Indirect (without a calculator)

$$\sqrt{0.0169} =$$

Direct (with a calculator)

Indirect (without a calculator)

Guess which one we're more interested in ... \_\_\_\_\_!!!

Consider

$$\sqrt{24} =$$

Direct (with a calculator)

Indirect (without a calculator)

This process is going from an \_\_\_\_\_ radical to a \_\_\_\_\_ radical.

Again! Write the radical in simplest form.

1.  $\sqrt{63}$

2.  $\sqrt[3]{108}$

3.  $\sqrt[4]{128}$

4.  $\sqrt{30}$

5.  $\sqrt[3]{32}$

6.  $\sqrt[4]{48}$

Backwards! Write each mixed radical as an entire radical.

1.  $7\sqrt{3}$

2.  $2\sqrt[3]{4}$

3.  $2\sqrt[5]{3}$

4.  $3\sqrt[3]{5}$

5.  $8\sqrt{2}$

6.  $3\sqrt[3]{4}$