

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

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

## Simplifying Fractions With Variables

Simplify

1  $\sqrt[3]{512x^8}$

\_\_\_\_\_

2  $\sqrt{xy^3} \cdot \sqrt[3]{x^2y}$

\_\_\_\_\_

3  $\sqrt{\frac{25y^3}{x^4}}$

\_\_\_\_\_

4  $\sqrt[4]{810x^9}$

\_\_\_\_\_

5  $\sqrt[3]{108p^3}$

\_\_\_\_\_

6  $\sqrt[7]{64a}$

\_\_\_\_\_

7  $\sqrt[4]{16x^5y^{11}}$

\_\_\_\_\_

8  $3a^2\sqrt[3]{2a}$

\_\_\_\_\_

9  $\sqrt[4]{48n^4}$

\_\_\_\_\_

10  $\sqrt[3]{-189m^4n^2}$

\_\_\_\_\_

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

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

## Simplifying Fractions With Variables

Simplify

1  $\sqrt[3]{512x^8}$

$8x^2\sqrt[3]{x^2}$

2  $\sqrt{xy^3} \cdot \sqrt[3]{x^2y}$

$xy\sqrt[3]{y}$

3  $\sqrt{\frac{25y^3}{x^4}}$

$\frac{5y\sqrt{y}}{x^2}$

4  $\sqrt[4]{810x^9}$

$3x^2\sqrt[4]{10x}$

5  $\sqrt[3]{108p^3}$

$42p\sqrt[3]{3p}$

6  $\sqrt[7]{64a}$

$56\sqrt[7]{a}$

7  $\sqrt[4]{16x^5y^{11}}$

$2xy^2\sqrt[4]{xy^3}$

8  $3a^2\sqrt[3]{2a}$

$-\sqrt[3]{-54a^7}$

9  $\sqrt[4]{48n^4}$

$16n^2\sqrt[4]{3}$

10  $\sqrt[3]{-189m^4n^2}$

$-3m\sqrt[3]{7mn^2}$