

## Rational Exponents

Date \_\_\_\_\_ Period \_\_\_\_\_

**Notes:****Write each expression in radical form.**

1)  $7^{\frac{5}{2}}$

2)  $4^{\frac{2}{3}}$

3)  $10^{\frac{1}{6}}$

4)  $5^{\frac{2}{3}}$

5)  $10^{\frac{1}{2}}$

6)  $2^{\frac{3}{2}}$

**Write each expression in exponential form.**

7)  $(\sqrt{5})^5$

8)  $(\sqrt{6})^3$

9)  $(\sqrt[5]{2})^2$

10)  $\sqrt[4]{5}$

11)  $(\sqrt[3]{5})^4$

12)  $(\sqrt[3]{5})^5$

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1)  $7^{\frac{5}{2}}$

$(\sqrt{7})^5$

2)  $4^{\frac{2}{3}}$

$(\sqrt[3]{4})^2$

3)  $10^{\frac{1}{6}}$

$\sqrt[6]{10}$

4)  $5^{\frac{2}{3}}$

$(\sqrt[3]{5})^2$

5)  $10^{\frac{1}{2}}$

$\sqrt{10}$

6)  $2^{\frac{3}{2}}$

$(\sqrt{2})^3$

Write each expression in exponential form.

7)  $(\sqrt{5})^5$

$5^{\frac{5}{2}}$

8)  $(\sqrt{6})^3$

$6^{\frac{3}{2}}$

9)  $(\sqrt[5]{2})^2$

$2^{\frac{2}{5}}$

10)  $\sqrt[4]{5}$

$5^{\frac{1}{4}}$

11)  $(\sqrt[3]{5})^4$

$5^{\frac{4}{3}}$

12)  $(\sqrt[3]{5})^5$

$5^{\frac{5}{3}}$