

HW 8-3 Rational Exponents

Name Selected Answer

Write each expression in radical form.

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

$\sqrt{7}$

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

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

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

4)  $7^{\frac{4}{3}}$

5)  $6^{\frac{3}{2}}$

$\sqrt{6^3}$

6)  $2^{\frac{1}{6}}$

Write each expression in exponential form.

7)  $(\sqrt{10})^3$

$10^{3/2}$

8)  $\sqrt[6]{2}$

9)  $(\sqrt[4]{2})^5$

$2^{5/4}$

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

Write each expression in radical form.

13)  $(5x)^{-\frac{5}{4}}$

$\frac{1}{\sqrt[4]{(5x)^5}}$

14)  $(5x)^{-\frac{1}{2}}$

15)  $(10n)^{\frac{3}{2}}$

$\sqrt{(10n)^3}$

16)  $a^{\frac{6}{5}}$