

Math II

Name _____ ID: 1

Rewriting Radicals and Fractional Exponents

Date _____ Period _____

Write each expression in radical form.

1) $10^{\frac{1}{3}}$ $\sqrt[3]{10}$

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

3) $5^{\frac{1}{4}}$ $\sqrt[4]{5}$

4) $7^{\frac{5}{2}}$ $\sqrt{7^5}$

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

6) $(3n)^{\frac{3}{2}}$ $\sqrt{3n^3}$

7) $(5m)^{\frac{1}{4}}$ $\sqrt[4]{5m}$

8) $(10x)^{\frac{1}{2}}$ $\sqrt{10x}$

9) $(6x)^{\frac{1}{2}}$ $\sqrt{6x}$

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

Write each expression in exponential form.

11) $\sqrt[4]{3}$ $(3)^{\frac{1}{4}}$

12) $\sqrt{5}$ $(5)^{\frac{1}{2}}$

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

14) $(\sqrt[3]{6})^5$ $(6)^{\frac{5}{3}}$

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

16) $(\sqrt[6]{k})^7$ $(k)^{\frac{7}{6}}$

17) $(\sqrt{x})^3$ $(x)^{\frac{3}{2}}$

18) $(\sqrt[3]{6v})^4$ $(6v)^{\frac{4}{3}}$

19) $n^{\frac{2}{4}}$ or $(n)^{\frac{1}{2}}$

20) $(\sqrt{10x})^5$ $(10x)^{\frac{5}{2}}$

