

## Radical and Rational Exponents (take two)

Date \_\_\_\_\_

**Write each expression in simplest radical form.**

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

2)  $(10n)^{\frac{2}{5}}$

3)  $(6m)^{\frac{5}{3}}$

4)  $(7n)^{\frac{5}{2}}$

5)  $(2n)^{\frac{1}{5}}$

6)  $n^{\frac{6}{5}}$

**Write each expression in exponential form.**

7)  $\sqrt[5]{2x}$

8)  $\sqrt[6]{10m^2}$

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

10)  $(\sqrt{x})^5$

11)  $(\sqrt[3]{6v})^2$

12)  $(\sqrt[4]{5n})^7$

**Simplify.**

13)  $(m^4)^{\frac{3}{2}}$

14)  $(k^8)^{\frac{3}{2}}$

15)  $(81m^2)^{\frac{3}{2}}$

16)  $(8p^6)^{\frac{4}{3}}$

17)  $(x^9)^{\frac{5}{3}}$

18)  $(64k^2)^{\frac{1}{2}}$