

## 2.1 Changing between Radical and Exponential Forms

Period \_\_\_\_\_

**Write each expression in exponential form.**

1)  $\sqrt{r}$

2)  $(\sqrt[6]{10x})^7$

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

4)  $(\sqrt{5m})^3$

5)  $(\sqrt[5]{b})^7$

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

7)  $\sqrt[3]{4x}$

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

**Write each expression in radical form.**

9)  $x^{\frac{5}{6}}$

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

11)  $(10m)^{\frac{5}{2}}$

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

$$13) (7x)^{\frac{1}{3}}$$

$$14) (6a)^{\frac{5}{2}}$$

$$15) (2n)^{\frac{5}{4}}$$

$$16) (3x)^{\frac{7}{4}}$$

**Simplify each expression.**

$$17) (7n - 6n^3) - (7n^3 + 3n^2 - n)$$

**Factor each completely.**

$$18) r^2 - 10r + 16$$

$$19) v^3 + 4v^2$$

$$20) 9p^2 - 4$$