

Topic 5.7  
Rational Expressions  
Homework  
**Evaluate.**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1.  $64^{\frac{1}{2}}$

2.  $81^{-\frac{1}{2}}$

3.  $8^{\frac{2}{3}}$

4.  $\left(\frac{64}{125}\right)^{\frac{1}{3}}$

5.  $4^{\frac{2}{3}} \bullet 4^{\frac{3}{4}}$

6.  $\frac{3^{\frac{4}{2}}}{4^{\frac{3}{2}}}$

**Simplify**

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

8.  $x^{\frac{2}{5}} \bullet x^{\frac{8}{3}}$

9.  $\frac{1}{x^{\frac{3}{4}}}$

10.  $\frac{2}{(x+y)^{\frac{2}{7}}}$

11.  $(3x)^{\frac{2}{3}} \bullet x^{\frac{4}{3}}$

12.  $\frac{x^{\frac{3}{4}} + x^{\frac{2}{3}}y}{x^{\frac{1}{4}}}$