

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

## SM2 3.2: Simple Fractional Exponent Operations

Problems: Simplify each expression. Your answer should contain only positive exponents.

1)  $3^{1/3}3^{1/4}$

2)  $\frac{8^{1/2}}{8^{2/3}}$

3)  $2a^{3/4} \cdot a^{2/3}$

4)  $5z^{-1/4}$

5)  $\frac{8x^3}{2x^{1/3}}$

6)  $\frac{5y^{1/2}}{15y^2}$

7)  $(v^2)^{1/2}$

8)  $(x^{4/3})^{-2}$

9)  $4mm^{3/2}$

10)  $\frac{2x^{-3/2}}{x^{-1/2}}$

$$11) (n^{3/4})^{1/3}$$

$$12) \frac{4m^{7/4}}{2m}$$

$$13) (r^0)^{2/3}$$

$$14) x^0 \cdot 2x^{2/3} \cdot 3x^{-2}$$

$$15) (5^4)^{1/2}$$

$$16) (144x^{16})^{1/2}$$

$$17) \frac{a^{1/2}}{a^{1/6}}$$

$$18) (9x^9)^{1/2}$$