

NAME: _____

SCORE: _____

Simplifying Expressions With Rational Exponents

INSTRUCTIONS: Reduce each expression to simplest form with only positive exponents.

1. $3(x^2)^{\frac{1}{3}} * \sqrt{9x^2}$ 0

2. $(2abc)^2 - (4a^2b^2c^2)^{-\frac{1}{2}}$

3. $3x^2y^2z^2 + 3x^2y^2z^2$

4. $(8a^3b^9)^{\frac{1}{3}} \div (9a^2b^6)^{\frac{1}{2}}$

5. $\frac{4a^{\frac{2}{3}}b^{\frac{4}{5}}}{2a^{\frac{1}{3}}b^{\frac{1}{5}}}$

6. $2x^2y^2 - 3(xy)^2 \div (-1)^2$

7. $3a^{\frac{1}{2}}b^{\frac{2}{3}} * 2ab^{\frac{1}{3}}$

8. $\frac{-(-1)^2}{-(ab)^2}$

9. $2(x^2y^2 - 2x^2y^2)^2$

10. $\frac{(a^2b^2)^{\frac{1}{2}} - (ab)^2}{ab}$

