

You may have thought that the 4th root of 9 meant $9 \div 4$, which results in 2.25. To simplify the expression in the problem, multiply the factors under one radical sign:

$$\sqrt[4]{9x^5y^2} \cdot \sqrt[4]{9x^5y^4} \cdot \sqrt[4]{x^2y^2} = \sqrt[4]{9x^5y^2 \cdot 9x^5y^4 \cdot x^2y^2}$$

Apply the laws of exponents. Identify powers of 4, rewrite the expression as a product, and simplify by using:

$$\sqrt[4]{a^4} = a$$