

$$9.15 \quad a) \quad \frac{\sqrt{6}}{\sqrt[4]{6}} = 6^{\frac{1}{2}} = 6^{\frac{2}{4} - \frac{1}{4}} = 6^{\frac{2}{4} - \frac{1}{4}} = 6^{\frac{1}{4}} = \underline{\underline{\sqrt[4]{6}}}$$

$$b) \quad \sqrt[12]{6} \cdot \sqrt[4]{6} = 6^{\frac{1}{12}} \cdot 6^{\frac{1}{4}} = 6^{\frac{1}{12} + \frac{3}{12}} = 6^{\frac{1}{12} + \frac{3}{12}} = 6^{\frac{4}{12}} = 6^{\frac{1}{3}} = \underline{\underline{\sqrt[3]{6}}}$$