

Use the rule $(ab)^x = a^x \cdot b^x$ to rewrite:

$$\frac{25m^4n^{\frac{2}{3}}}{m^2 125^{\frac{1}{3}} n^{\frac{1}{3}}} = \frac{25m^4n^{\frac{2}{3}}}{m^2(5^3)^{\frac{1}{3}}n^{\frac{1}{3}}} = \frac{25m^4n^{\frac{2}{3}}}{5^{\frac{3}{3}}m^2n^{\frac{1}{3}}}$$

Rewrite as a product: $\frac{25}{5} \cdot \frac{m^4}{m^2} \cdot \frac{n^{\frac{2}{3}}}{n^{\frac{1}{3}}} = 5 \cdot m^{4-2} \cdot n^{\frac{2}{3}-\frac{1}{3}} = 5m^2n^{\frac{1}{3}}$

Change the last factor to radical form: $5m^2\sqrt[3]{n}$