

$$a^{\frac{10}{3}}b^{\frac{7}{3}} = (a^{10})^{\frac{1}{3}}(b^7)^{\frac{1}{3}} = (a^{10}b^7)^{\frac{1}{3}} = \sqrt[3]{a^{10}b^7} =$$

$$\sqrt[3]{(a^3)^3 \cdot a \cdot (b^2)^3 \cdot b} = a^3b^2\sqrt[3]{ab}$$