

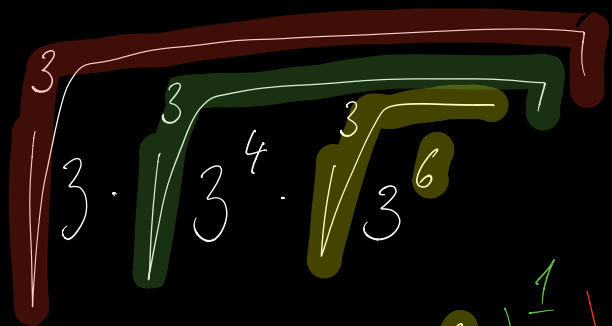
$$\sqrt{2 \sqrt[3]{2}} = \sqrt[n]{b} = b^{\frac{1}{n}} \quad (2^n)^m = 2^{n \cdot m}$$

$$\sqrt[2]{2^1 \cdot \sqrt[3]{2^1}} = \sqrt{b} = \sqrt[2]{b^1} \quad 2^n \cdot 2^m = 2^{n+m}$$

$$= b^{\frac{1}{2}} \quad \sqrt[n]{2^m} = 2^{\frac{m}{n}}$$

$$\left(2^1 \cdot 2^{\frac{1}{3}}\right)^{\frac{1}{2}} = 1 + \frac{1}{3} = \frac{3}{3} + \frac{1}{3} = \frac{4}{3}$$

$$\left(2^{\frac{4}{3}}\right)^{\frac{1}{2}} = 2^{\frac{4}{3} \cdot \frac{1}{2}} = 2^{\frac{4}{6}} = 2^{\frac{2}{3}} = \sqrt[3]{2^2}$$



$$\sqrt[n]{2^m} = 2^{\frac{m}{n}}$$

$$4 + \frac{6}{3} = 4 + 2$$

$$\left( 3^1 \cdot \left( 3^4 \cdot 3^{\frac{6}{3}} \right)^{\frac{1}{3}} \right)^{\frac{1}{3}} =$$

$$6 \cdot \frac{1}{3} = 2$$

$$\left( 3^1 \left( 3^6 \right)^{\frac{1}{3}} \right)^{\frac{1}{3}} =$$

$$\left( 3^1 \cdot 3^2 \right)^{\frac{1}{3}} =$$

$$\left( 3^3 \right)^{\frac{1}{3}} = 3^{3 \cdot \frac{1}{3}} = 3$$

$$\sqrt[3]{2 \cdot \sqrt[6]{2^{14}}} = \left( 2^1 \cdot \left( \frac{2^{14}}{2^{6/3}} \right)^{1/6} \right)^{1/3} = 2$$

$14 - 2 = 12$

$$\left( 2^1 \cdot \left( 2^{12} \right)^{1/6} \right)^{1/3} = \left( 2^1 \cdot 2^2 \right)^{1/3} = \left( 2^3 \right)^{1/3} = 2^{3 \cdot \frac{1}{3}} = 2$$

$12 \cdot \frac{1}{6} = 2$