$$2^{\frac{p}{q}} = \sqrt[q]{2^p}$$

$$\sqrt{b} = b^{\frac{1}{2}}$$

$$5^{1,4} = 5^{\frac{14}{10}} = \sqrt[10]{5^{14}}$$

$$\sqrt[n]{c} = c^{\frac{1}{n}}$$

1.8 | 1.14 a 1.16

$$\frac{1}{\sqrt[2]{3^1}} = \frac{1}{3^{\frac{1}{2}}} = 3^{-\frac{1}{2}} = 3^{-0,5}$$

$$\sqrt[q]{2^p} = 2^{\frac{p}{q}}$$

$$\frac{1}{n} = 2^{-n}$$

$$\frac{5}{\sqrt{2}} = \frac{5}{2^{\frac{1}{2}}} = 5 \cdot \frac{1}{2^{\frac{1}{2}}}$$

$$= 5 \cdot 2^{-\frac{1}{2}}$$

$$3^2 + 4^2 = 25$$

$$3 + 4 = \sqrt{3^2 + 4^2} = 5$$

$$8 \cdot 4^{-\frac{3}{7}} = 2^3 \cdot \left(2^2\right)^{-\frac{3}{7}} \qquad \left(a^n\right)^m = a^{n \cdot m}$$

$$= 2^3 \cdot 2^{\frac{2}{1} \cdot \left(-\frac{3}{7}\right)} \qquad a^n \cdot a^m = a^{n+m}$$

$$k \cdot \frac{a}{b} = \frac{ka}{b}$$

$$= \frac{k}{1} \cdot \frac{a}{b} = \frac{k \cdot a}{1 \cdot b}$$

$$= 2^3 \cdot 2^{-\frac{6}{7}} = 2^{3-\frac{6}{7}} = 2^{\frac{21}{7}-\frac{6}{7}} = 2^{\frac{15}{7}}$$

$$\sqrt[3]{2^5} \cdot \sqrt[2]{2^3} = 2^{\frac{5}{3}} \cdot 2^{\frac{3}{2}} = 2^{\frac{5}{3}+\frac{3}{2}} = \boxed{2^{\frac{19}{6}}}$$

$$\sqrt[9]{2^p} = 2^{\frac{p}{9}}$$

$$\sqrt[2]{(2x)^1} = (2x)^{\frac{1}{2}} = 2^{\frac{1}{2}} x^{\frac{1}{2}}$$

$$\sqrt[2]{2^1} = 2^{\frac{1}{2}}$$

$$\frac{a}{b} = \frac{a}{1} \cdot \frac{1}{b} = a \cdot \frac{1}{b}$$

$$\frac{8}{\sqrt[7]{4^3}} = \frac{8}{4^{\frac{3}{7}}} = 8 \cdot \frac{1}{4^{\frac{3}{7}}}$$

$$\frac{1}{2^n} = 2^{-n}$$

$$= 8 \cdot 4^{-\frac{3}{7}}$$

$$(2^n)^m = 2^{(n \cdot m)}$$

$$= 2^3 \cdot (2^2)^{-\frac{3}{7}}$$

$$= 2^3 \cdot 2^{2 \cdot \left(-\frac{3}{7}\right)} = 2^3 \cdot 2^{-\frac{2}{1} \cdot \frac{3}{7}}$$

$$= 2^{3 - \frac{6}{7}}$$

$$= 2^{\frac{15}{7}}$$