

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

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

$$2. \frac{3^2 \sqrt{3}}{3^5} = 3^{-5/2}$$

$$\frac{3^{\textcircled{2}}}{3^{\textcircled{5}}} = -5/2$$

$$3. \frac{\frac{2}{5}}{\left(\frac{2}{5}\right)^{3/4}} = \frac{2}{5} \div \frac{2}{5} = \frac{1}{2} - \frac{3}{4} = \frac{2}{5}^{1/4}$$