

분모($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)의 유리화
(Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$))

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\frac{1}{\sqrt{a} - \sqrt{b}}$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\frac{1}{\sqrt{a} - \sqrt{b}} = \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})}$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

$$\frac{1}{\sqrt{a} + \sqrt{b}}$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

$$\frac{1}{\sqrt{a} + \sqrt{b}} = \frac{\sqrt{a} - \sqrt{b}}{(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})}$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

$$\begin{aligned}\frac{1}{\sqrt{a} + \sqrt{b}} &= \frac{\sqrt{a} - \sqrt{b}}{(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})} \\ &= \frac{\sqrt{a} - \sqrt{b}}{a - b}\end{aligned}$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

$$\begin{aligned}\frac{1}{\sqrt{a} + \sqrt{b}} &= \frac{\sqrt{a} - \sqrt{b}}{(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})} \\ &= \frac{\sqrt{a} - \sqrt{b}}{a - b}\end{aligned}$$

∴

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

$$\begin{aligned}\frac{1}{\sqrt{a} + \sqrt{b}} &= \frac{\sqrt{a} - \sqrt{b}}{(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})} \\ &= \frac{\sqrt{a} - \sqrt{b}}{a - b}\end{aligned}$$

$$\therefore \frac{1}{\sqrt{a} \pm \sqrt{b}} = \frac{\sqrt{a} \mp \sqrt{b}}{a - b} \quad (a > 0, b > 0, a \neq b)$$

Rationalization of Denominator ($\sqrt{a} - \sqrt{b}$, $\sqrt{a} + \sqrt{b}$)

▶ Start

$$\begin{aligned}\frac{1}{\sqrt{a} - \sqrt{b}} &= \frac{\sqrt{a} + \sqrt{b}}{(\sqrt{a} - \sqrt{b})(\sqrt{a} + \sqrt{b})} \\ &= \frac{\sqrt{a} + \sqrt{b}}{a - b}\end{aligned}$$

$$\begin{aligned}\frac{1}{\sqrt{a} + \sqrt{b}} &= \frac{\sqrt{a} - \sqrt{b}}{(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})} \\ &= \frac{\sqrt{a} - \sqrt{b}}{a - b}\end{aligned}$$

$$\therefore \frac{1}{\sqrt{a} \pm \sqrt{b}} = \frac{\sqrt{a} \mp \sqrt{b}}{a - b} \quad (a > 0, b > 0, a \neq b)$$

▶ Home

END