

مقاييس وبيها:

- \*  $a < b \Leftrightarrow a^n < b^n \Rightarrow (-r)^n < r^n \Rightarrow -r > r$
- \*  $a < b \Leftrightarrow \sqrt[n]{a} < \sqrt[n]{b} \Rightarrow \frac{1}{\sqrt[n]{b}} > \frac{1}{\sqrt[n]{a}} \Rightarrow \sqrt[n]{\frac{1}{b}} > \sqrt[n]{\frac{1}{a}}$
- $a < b \Rightarrow a^n < b^n$  (عمر)  $\Rightarrow a/b < b/a$  (عمر)

$$C = \sqrt[2m]{2m}, b = \sqrt[2m]{2m}, a = \sqrt[2m]{2m}$$

$$c < b < a \quad (c < a < b) \quad a < b < c$$

$$\sqrt[2m]{2m} < \sqrt[2m]{2m} \quad b < a < c$$

$$a < c < b$$

جذر عادي و جذر غير عادي (جذر عادي)

$$r < \sqrt{a} < r^m \Rightarrow r < (\sqrt{a})^m < r^m \quad a = r^{2m}, \dots, r^{2m}$$

$$r^m < a < r^{2m} \quad \frac{r^{2m}-r^m}{r^m} + 1 = r^m$$

$$a < 1 \quad \begin{cases} a > a \\ \sqrt[n]{a} < \sqrt[n]{a} \end{cases} \quad a > 1 \quad \begin{cases} a < a \\ \sqrt[n]{a} > \sqrt[n]{a} \end{cases}$$

$$a = \frac{1}{r} \quad \begin{cases} \left(\frac{1}{r}\right)^m < \left(\frac{1}{r}\right)^n \\ \sqrt[n]{\frac{1}{r}} < \sqrt[m]{\frac{1}{r}} \end{cases} \quad a = r^m \quad \begin{cases} r^m < r^n \\ \sqrt[m]{r} < \sqrt[n]{r} \end{cases}$$

$$-1 < a < 0 \quad \begin{cases} a^m < a^n \\ \sqrt[n]{a} > \sqrt[m]{a} \end{cases} \quad a < -1 \quad \begin{cases} a^m > a^n \\ \sqrt[n]{a} < \sqrt[m]{a} \end{cases}$$

$C = \sqrt[n]{\varepsilon}, b = \sqrt[m]{\varepsilon}, a = \sqrt[r]{\varepsilon}$

$$-r < -1 \quad \sqrt[n]{\varepsilon} < \sqrt[m]{\varepsilon} < \sqrt[r]{\varepsilon} \quad a < b < c$$

$c < b < a \quad (c < a < b) \quad b < c < a$

$$|\sqrt[n]{a} - \sqrt[m]{a}| + |\sqrt[n]{a} - \sqrt[r]{a}| + \sqrt[r]{a} \quad \text{حال} \quad 0 < a < 1$$

رسان فرید

$$\sqrt[n]{a} + \sqrt[m]{a} + (-\sqrt[r]{a} + \sqrt[r]{a}) \sqrt[r]{a}$$

$$= \sqrt[n]{a} - \sqrt[r]{a} + \sqrt[m]{a}$$

$$\frac{1}{n} < \frac{1}{r} < \frac{1}{m} \quad n > r > m \quad a > 0 \quad \Rightarrow \sqrt[n]{a} > \sqrt[r]{a} > \sqrt[m]{a}$$

$$a = \left(\sqrt[n]{a}\right)^n = \left(\sqrt[m]{a}\right)^m = \sqrt[m]{a^m}$$

$$a = \left(\sqrt[r]{a}\right)^r = \left(\sqrt[n]{a}\right)^n = \sqrt[n]{a^r}$$

$$\sqrt{\frac{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}}{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}}} = \frac{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}}{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}} = 1$$

$$\sqrt{\frac{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}}{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}}} = \frac{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}}{\sqrt[n]{\lambda} \times \sqrt[n]{\delta} \times \sqrt[n]{r}} = 1$$

$$(\sqrt[n]{\lambda} - \sqrt[n]{\lambda} + \sqrt[n]{r})(\sqrt[n]{r} - 1)$$

$$\sqrt[n]{\lambda} + \sqrt[n]{\delta} + \sqrt[n]{r} + \sqrt[n]{\lambda + \delta + r}$$