



سوال ۷

$$r^{n-2} = 1/n$$

↓  
r<sup>2n</sup>

$$\log_r (n-2) = ?$$

$$\rightarrow \log_r \sqrt{4} = \frac{1}{2}$$

$$\Rightarrow n^2 - 2 = 1/n \rightarrow n^2 - 2n + 2 - 2 = 0 \rightarrow (n-2)^2 = 2 \rightarrow n-2 = \sqrt{2}$$

$$\log_r^2 = \frac{a}{n}$$

$$\log_n^2 = ?$$

$$\rightarrow \frac{3 \log_r^2}{\log_r^2 + 2 \log_r^3} = \frac{3(a/n)}{a/n + 2(na)} = \frac{3a/n}{21a/n} = \frac{a}{7}$$

سوال ۸

$$\frac{\log_r^2}{\log_r^3} = \frac{a}{n} \rightarrow \log_r^2 = na$$

$$\log_r^3 = na$$

$$\log_r^3 = 1/n$$

$$\log_{1/r}^2 = ?$$

$$\rightarrow \frac{\log_r^2 + \log_r^3}{2 \log_r^2 + \log_r^3} = \frac{na + na}{2na + na} = \frac{2na}{3na} = \frac{2}{3}$$

سوال ۹

$$\frac{\log_r^3}{2 \log_r^2} = \frac{1}{n} \rightarrow \frac{\log_r^3}{\log_r^2} = \frac{1}{a} \rightarrow \log_r^3 = na$$

$$\log_r^2 = na$$

$$(a \log_r^2) x^2 + ax + b \log_r^2 = 0$$

بسیار زیاده : -1

$$(\sqrt{r})^{\frac{b}{a}} = ?$$

سوال ۱۰

$$n = -1 \rightarrow a \log_r^2 - a + b \log_r^2 = 0 \rightarrow (a+b) \log_r^2 = a \rightarrow \log_r^2 = \frac{a}{a+b}$$

$$\rightarrow \frac{1}{\log_r^2} = \frac{a+b}{a} \rightarrow \log_r^2 = \frac{a+b}{a} = 1 + \frac{b}{a} \rightarrow \log_r^2 - 1 = \frac{b}{a} \rightarrow \frac{b}{a} = \log_r^2$$

$$\Rightarrow (\sqrt{r})^{\log_r^2} = r^{\frac{1}{2} \log_r^2} = \sqrt{a}$$