

پاران شرفی سری لیست و سوم

$$\log_n^m = a$$

$$\log_{mn}^{mn} = b$$

$$a > 0 \quad [b] = ?$$

سوال ۱

$$n^a = m$$

$$\log_{mn}^{mn} \Rightarrow \log_{mn}^m = b$$

$$\frac{1}{\log_n^m} = b - 1 \quad | \text{BKR}$$

$$\log_n^m + \log_m^n = b$$

$$\frac{1}{a} > 0 \Rightarrow \frac{1}{1+a} < 1 \Rightarrow [b] = 1$$

$$y = \sqrt{\frac{n}{\log_n \frac{1}{r}}}$$

$$\frac{n}{\log_n \frac{1}{r}} > 0 \Rightarrow n > 0$$

$$\frac{1}{-1+1} = \infty$$

$$\log_n \frac{1}{r} \neq 0 \Rightarrow \log_n \frac{1}{r} \neq 0 \Rightarrow \frac{1}{r} = 1 = n$$

$$n = (0, 1)$$

$$y = \frac{\log(x^2 - x - 1)}{x}$$

$$x^2 - x - 1 > 0$$

$$(x-2)(x+1) > 0 \Rightarrow$$

$$\frac{1}{+} \frac{2}{-} \frac{1}{+}$$

$$x < -1$$

$$x^2 - 1 > 0$$

$$x^2 > 1 \Rightarrow x < -1$$

$$D = (-\infty, -1) \cup (1, +\infty)$$

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$$r \log_n^a + \log_a^{\sqrt{n}} = 2 \Rightarrow n = 9$$

سوال ۳

$$r \log_n^a + \log_a^r = 2 \Rightarrow \frac{r}{r} \log_n^a + \log_a^r = 2 \quad \log_n^a = t$$

$$\log_n^a + \frac{1}{\log_n^a} = 2$$

$$t + \frac{1}{t} = 2 \Rightarrow t^2 + 1 - 2t = 0$$

$$(t-1)^2 = 0 \Rightarrow t = 1 \Rightarrow \log_n^a = 1 \Rightarrow a = n$$

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$$\log_2 2 \approx 0.3 \quad \log_2 3 \approx 0.4 \quad (\log_2^2) n^2 + (\log_2 9) n - \log_2 12 = 0$$

سوال ۴

$$(\log_2^2 - (\log_2 9 - \log_2 3)) = (\log_2 10 - \log_2 2 - \log_2 3) = 1 - 0.3 - 0.4 = 0.3$$

$$\log_2 9 = \log_2 3^2 = 2 \times 0.4 = 0.8$$

$$\log_2 12 = \log_2 4 + \log_2 3 = \log_2 10 - \log_2 2 + \log_2 3$$

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$$0.8 n^2 + 0.4 n - 1.1 = 0$$

$$\Delta = (0.4)^2 - 4 \times 0.8 \times (-1.1) = 0.16 + 3.52 = 3.68$$

$$\frac{\sqrt{\Delta}}{a} = \frac{\sqrt{3.68}}{0.8} \approx \frac{1.92}{0.8} = 2.4$$

$$\log_{\frac{1}{2}} V = 2,1 \quad \log_{\frac{1}{2}} 2 = 0,1 \quad \log_{\frac{1}{2}} 10 = ?$$

سوال ۱۰

$$\log_{\frac{1}{2}} 10 = \frac{\log_{\frac{1}{2}} 10}{\log_{\frac{1}{2}} 10} = \frac{\log_{\frac{1}{2}} 10}{\log_{\frac{1}{2}} V \times \log_{\frac{1}{2}} 2} = \frac{\log_{\frac{1}{2}} 10}{\log_{\frac{1}{2}} V + \log_{\frac{1}{2}} 2} = \frac{2,1}{2,1 + 0,1} = \frac{2,1}{2,2} = \frac{3}{3,1}$$

$$\log_{\frac{1}{2}} 2 = 0,1 \rightarrow \frac{1}{\log_{\frac{1}{2}} 2} = \frac{1}{0,1} \rightarrow \log_{\frac{1}{2}} 2 = 2$$

$$\log_{\frac{1}{2}} 10 = 1,1 \quad \log_{\frac{1}{2}} 2 = 1,4 \quad \log_{\frac{1}{2}} 4 = ?$$

سوال ۶

$$\frac{\log_{\frac{1}{2}} 10}{\log_{\frac{1}{2}} 2} = 1,1 \quad \frac{\log_{\frac{1}{2}} 2}{\log_{\frac{1}{2}} 2} = 1,4 \rightarrow \frac{1}{\log_{\frac{1}{2}} 2} = \log_{\frac{1}{2}} 4 - \log_{\frac{1}{2}} 2 \rightarrow 2,4 \log_{\frac{1}{2}} 2 = \log_{\frac{1}{2}} 4$$

$$\log_{\frac{1}{2}} 10 - \log_{\frac{1}{2}} 2 = 1,1 \rightarrow 1 - \log_{\frac{1}{2}} 2 = 1,1 \log_{\frac{1}{2}} 4 - 1,1 \log_{\frac{1}{2}} 2$$

$$1 + 4 \log_{\frac{1}{2}} 2 = 1,1 \log_{\frac{1}{2}} 4$$

$$1 + 4 \log_{\frac{1}{2}} 2 = 1,1 (2,4 \log_{\frac{1}{2}} 2)$$

$$1 = 3,1 \log_{\frac{1}{2}} 2 \rightarrow \log_{\frac{1}{2}} 2 = 0,3$$

$$\frac{\log_{\frac{1}{2}} 2}{0,3} = 1,4 \quad \log_{\frac{1}{2}} 4 = 2,1 \times 1,4 = 0,1 \times 1,4$$

$$\log_{\frac{1}{2}} 4 = 0,14$$

$$\log_{\frac{1}{2}} 4 = \frac{\log_{\frac{1}{2}} 4}{\log_{\frac{1}{2}} 10} = \frac{0,14}{1,1} = \frac{0,14}{1,1} = 0,127$$

$$\frac{1,1}{1,1} = 1,1$$

$$\log_{\frac{1}{2}} 10 = m$$

$$\log_{\frac{1}{2}} 10 = \log_{\frac{1}{2}} 2^m = m \log_{\frac{1}{2}} 2$$

$$\log_{\frac{1}{2}} 10 = \log_{\frac{1}{2}} 2^m = \frac{m}{2} \log_{\frac{1}{2}} 2 + \frac{1}{2} \log_{\frac{1}{2}} 2 = m$$

$$1 + \frac{1}{2} \left(\frac{m}{2} - \frac{1}{2} \right) = \frac{m}{2} + \frac{1}{2} m$$

$$\frac{1}{2} \log_{\frac{1}{2}} 2 = m - \frac{1}{2} \rightarrow \log_{\frac{1}{2}} 2 = \frac{m}{2} - \frac{1}{2}$$

$$9x+1 > 0$$

$$x > -\frac{1}{9}$$

$$\left(\frac{1}{10}\right)^{px-1} = \left(\frac{1}{\lambda}\right)^{x^p} \quad \log_{\lambda} = ?$$

سوال 1

$$\left(\frac{1}{10}\right)^{px-1} = \left(\frac{1}{\lambda}\right)^{x^p}$$

$$\left(\frac{1}{10}\right)^{px-1} = \frac{1^{px-1}}{10^{px-1}} = \frac{\omega^{px-1}}{10^{px-1}} = \frac{\omega^{px-1}}{10^{px-1}} = \omega^{px-1} = \omega^{px-1}$$

$$\frac{10^{px-1}}{10^{px-1}} = \frac{\omega^{px-1}}{\omega^{px-1}} = \omega^{px-1} = \omega^{px-1}$$

$$p = \frac{px-1}{x-1}$$

$$px^p + px - 1 = 0$$

$$x^p + px - 1 = 0$$

$$(x+1)(x-1) = 0$$

$$x = -\frac{1}{p} - 1 \quad x = +\frac{1}{p}$$

$$\log_{\lambda}^{(4x+1)} = \log_{\lambda}^{11} = \frac{11}{\lambda}$$

$$\log_{\lambda}^{(4x+1)} = \frac{1}{\lambda} \left(\log_{\lambda}^{11} \right) = \frac{1}{\lambda}$$

$$\log_{\lambda}^p = a \quad \log_{\lambda}^b = \frac{1}{p} (1+a) \quad \log_{\lambda}^{(pb-1)} = ? \quad \text{سوال 2}$$

$$p = 1$$

$$\log_{\lambda}^b = \frac{1}{p} (1+a) \rightarrow \log_{\lambda}^b = \frac{1}{p} (\log_{\lambda}^p + \log_{\lambda}^p)$$

$$\log_{\lambda}^{(pb-1)} = \log_{\lambda}^{(1 \cdot b - 1)} = \log_{\lambda}^{(b-1)} \quad \log_{\lambda}^b = \frac{1}{p} (\log_{\lambda}^p)$$

$$\log_{10}^{1.0} = \frac{1}{p}$$

$$\log_{\lambda}^b = \log_{\lambda}^{p^r} \rightarrow b = p^r$$

$$-f a x^p + b x + \frac{1}{r} c = 0 \quad \log_{\lambda}^p \rightarrow \text{سوال 3}$$

$$a = \frac{b+c}{r} \quad \frac{1}{r} \frac{c}{a} = ?$$

$$a = \frac{b+c}{r}$$

$$\left(\frac{1}{r}\right) \frac{c}{a} = ?$$

$$ra = b+c \rightarrow r = \frac{b}{a} + \frac{c}{a}$$

$$\frac{fa}{b} = \log_{\lambda}^p \rightarrow p \log_{\lambda}^p = \frac{fa}{b} \rightarrow \frac{1}{p} \log_{\lambda}^p = \frac{a}{b} \rightarrow b/a = p \log_{\lambda}^{10} b$$

$$\frac{1}{\sqrt{r}} = \left(\frac{1}{\lambda}\right)^{\frac{c}{a}} \rightarrow \frac{1}{\sqrt{r}} = \left(\frac{1}{\lambda}\right)^{\frac{c}{a}} \rightarrow \frac{1}{\sqrt{r}} = \left(\frac{1}{\lambda}\right)^{\frac{c}{a}}$$

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Arman