

رسماء رضوانى راد يازدهم و ستر ٢٠٢٠ - الف

$$\sqrt{\frac{x}{\log_2 x}} \rightarrow \textcircled{1} \quad \frac{1}{x} \rightarrow \textcircled{2} \Rightarrow D = (0, 1)$$

$$x^2 - x - 1 > 0 \Rightarrow \frac{-1 \pm \sqrt{5}}{2} \Rightarrow x > \frac{1+\sqrt{5}}{2}, x < \frac{1-\sqrt{5}}{2}$$

$$x^2 - 1 \geq 0 \Rightarrow x \in \mathbb{R} - (-1, 1)$$

$$\alpha - \beta = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{f(\log_2 x)^2 + f(\log_2 x) \cdot \log_2 x + f(\log_2 x)}}{\log_2 x - \log_2 x}$$

$$\log_2 10 = \log_2 10 - \log_2 1 = 1 - 0 = 1$$

$$\log_2 10 \leq 0.17 + 0.17 \leq 1 \quad \log_2 10 \leq 0.17 + 0.17 \leq 1$$

$$\Rightarrow \frac{\sqrt{f(\frac{1}{10}) + f(1/10) \cdot 0.17}}{0.17} = \frac{\sqrt{1/10 + 1/10 \cdot 0.17}}{0.17} = \frac{1/10}{0.17}$$

$$x^m \leq x \cdot x^r \Rightarrow x \leq x^{\frac{m+r}{r}}$$

$$\frac{1}{r} \log_2 x^r = \frac{1}{r} \log_2 x^{\frac{m+r}{r}} = \frac{m+r}{r^2}$$

$$x^a = x \Rightarrow x^a = x$$

$$x^{a+r} = b \Rightarrow x \cdot x^a = x \cdot x \Rightarrow x^{a+r} = x^2 \Rightarrow x^{a+r} - x^2 = 1 \Rightarrow 1 = 0$$

$$\log_{10} = x$$

$$n^a = m$$

$$\log_m n = \log_{n^{1/a}} n = \frac{1/a + 1}{1/a} = b$$

$$\frac{1/a + 1}{1/a} = 1 \Rightarrow \frac{1/a + 1}{1/a} = 1 \Rightarrow [b] = 1$$

$$x \log_2 x + \log_2 x = 1 \Rightarrow \log_2 x + \log_2 x = 1$$

$$\log_{x^2} x^2 = \log_{x^2} x^2 = \frac{2}{2} = 1$$

$$x = x^2 \Rightarrow x = x^2$$

$$x^{1/2} = x \Rightarrow x^{1/2} = x \Rightarrow x = x^2$$

$$\log_{x^2} x^2 = \log_{x^2} x^2 = \frac{2}{2} = 1$$

$$\left(\frac{a}{x}\right)^{x^2} = \left(\frac{x}{a}\right)^{x^2}$$

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

$$\frac{1}{r} \log_2 x^r = \frac{x}{r}$$

$$\frac{a}{b} = \frac{b}{a} = \frac{b}{a}$$

$$\frac{a}{b} = \log_2 x \quad x = b + c$$

$$x \log_2 x = b \Rightarrow x \log_2 x = b$$

$$a = \log_2 x$$

$$\log_2 x = b + c \Rightarrow c = b - \log_2 x$$

$$\Rightarrow \left(\frac{1}{x}\right)^{\log_2 x} = \left(\frac{1}{x}\right)^{\log_2 x}$$

$$\left(\frac{1}{x}\right)^{\log_2 x} = \left(\frac{1}{x}\right)^{\log_2 x}$$