

19, 25

کیاں جعفری

Date

Subject

1- $x=0 \Rightarrow 1 - \log_c^{-b} = 2 \Rightarrow \log_c^{-b} = -1 \Rightarrow b = -\frac{1}{c}$
 $\frac{1}{c} + c = \frac{-r}{r} \Rightarrow (c^2 + 1)rc - 1 = 0 \rightarrow c = \frac{-r \pm \sqrt{r^2 + 4}}{2r} \checkmark$
 $\Rightarrow b = \textcircled{-\frac{1}{r}} \checkmark \quad x = -\frac{1}{r} \Rightarrow 1 - \log_a^{-\frac{1}{r}} + r = 0 \quad \textcircled{1, 2}$
 $\Rightarrow \frac{1}{r} = -\frac{1}{r} + r \Rightarrow a = 1 \checkmark \rightarrow (1 + \frac{1}{r})^{-r} = \frac{r}{r+1}$
 رفت! $(a+c)b = \boxed{-r}$

2- $f(x) = 1 + cx^{r^{a+b}} = 0 \Rightarrow cx^{r^{a+b}} = -1$
 $f(0) = 1 + cx^{ra} = \frac{+r}{r} \Rightarrow cx^{ra} = \frac{-1}{r} \quad \textcircled{2}$
 $\frac{-1}{cx^{ra}} \cdot x^{rb} = -1 \Rightarrow r^b = r \Rightarrow f(-1) = 1 + cx^{r^{a-b}}$
 $\Rightarrow 1 + \frac{cx^{ra}}{r^b} = 1 + \frac{-1}{r} = 1 - \frac{1}{r} = \frac{r-1}{r} \checkmark$

3- $y = c + \log_a(cx+b)$
 $f(0) = c + \log_a b = r \rightarrow \log_a b = r - c \quad \textcircled{2}$
 $f(r, r) = \log_a r^{ra+b} = -c \rightarrow r^{ra+b} = a^{-c} \Rightarrow b = \frac{r^c}{a^c}$
 $r^{ra} + \frac{r^c}{a^c} = \frac{1}{a^c} \Rightarrow \frac{r^{ra}}{1} a = \frac{-r^c}{a^c} \Rightarrow a = \frac{-1}{a^c} \rightarrow \frac{a}{b} = -\frac{1}{r^c} \checkmark$

4- $\log_r(|x^r - r| - x) \Rightarrow |x^r - r| - x > 0 \Rightarrow |x^r - r| > x \quad \textcircled{2}$

$\begin{cases} x^r - r = x \Rightarrow x = r \\ x^r - r = -x \Rightarrow x = 1 \end{cases} \Rightarrow D_f = (-\infty, 1) \cup (r, +\infty) \checkmark$

5- $\begin{cases} x=1 \Rightarrow -1 - r + 1 = \textcircled{0} \Rightarrow r + r^{b-a} = r \quad \textcircled{1, 2} \\ g(x) \end{cases}$
 $r^{b-a} = r \Rightarrow b-a = 1$

$f(-1) = 10 \Rightarrow r + r^{b+a} = 10 \Rightarrow r = 1 \Rightarrow b+a = 10$
 $f(r) = r + r^{r-r} = r + \frac{1}{r} = \frac{r^2 + 1}{r} \quad \textcircled{3}$
 $r^{b-a} = \boxed{r}$
 $b = r$
 $a = 1 \checkmark$

خطا سوال

$$y. \quad \begin{cases} x=1 \Rightarrow 0 \\ n=r \Rightarrow r \end{cases} \quad -r + r^{-An-B} \quad \begin{cases} n=1 \rightarrow -r + r^{-A-B} = 0 \\ n=r \rightarrow -r + r^{-rA-B} = r \end{cases}$$

$$\begin{cases} +A+B = -1 \\ -rA-B = r \end{cases} \Rightarrow \begin{cases} A = -1 \\ B = 0 \end{cases} \quad f(r) = -r + r^r = \underline{4} \checkmark \quad (r)$$

$$v. \quad a = A \frac{1}{q}^t \Rightarrow \frac{1}{7} = \frac{1}{9} \Rightarrow \log_{\frac{1}{7}}^{\frac{1}{9}} = t \Rightarrow \frac{\log_{10}^{\frac{1}{9}} + \log_{10}^{\frac{1}{7}}}{r \log_{10}^{\frac{1}{9}} - r \log_{10}^{\frac{1}{7}}} = t \quad (r)$$

$$t = \frac{19}{r} \quad \frac{19}{r} \times 70 = \underline{rA_2} \checkmark$$

$$r. \quad a = A \frac{1}{n}^t \Rightarrow \frac{1}{v} = \frac{1}{n}^t \Rightarrow \log_{\frac{1}{v}}^{\frac{1}{n}} = t \quad (r)$$

$$\frac{1}{\log_{\frac{1}{v}}^{\frac{1}{n}}} = \frac{\log_{10}^{\frac{1}{n}}}{\log_{10}^{\frac{1}{n}} - \log_{10}^{\frac{1}{v}}} = \frac{\log_{10}^{\frac{1}{n}}}{r \log_{10}^{\frac{1}{n}} - \log_{10}^{\frac{1}{v}}} = \frac{\frac{10}{7}}{\frac{r_0}{17} + \frac{10}{7}} = \underline{\quad} \checkmark$$

$$\underline{\quad}^n \times v = \underline{\quad} \checkmark$$

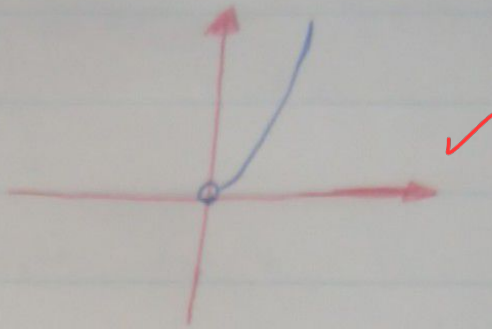
$$q. \quad a = A \frac{94}{100}^t \Rightarrow \frac{1}{r} = \frac{97}{100}^t \Rightarrow \log_{\frac{100}{97}}^{\frac{1}{r}} = t \quad (r)$$

$$\frac{\log_{10}^{\frac{1}{r}}}{\log_{10}^{\frac{100}{97}} - \log_{10}^{\frac{1}{r}}} = \frac{\log_{10}^{\frac{1}{r}}}{r - (\log_{10}^{\frac{100}{97}} + \log_{10}^{\frac{1}{r}})} = \frac{rA}{rA} = \underline{rA} \checkmark$$

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الف) $a^{\log_r x} = x^r$
 $x > 0$



ب) $r | \log |x|$

