نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره ۲۵ کلاس یازدهم دوشنبه سیزده

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$y = 1 - \log_c^{(ax-b)} \longrightarrow 1 + \log_c^{(-1/5ax-b)} = \neq 1$

$\longrightarrow c = -1/5ax - b \longrightarrow b + c = -\frac{3}{2} = -\frac{3}{2}a \longrightarrow a = 1$

$\longrightarrow 1 + \log_c^{(-b)} = 1 \longrightarrow \frac{1}{c} = -b \longrightarrow bc = -1$

$\longrightarrow c = \frac{1}{2}, b = -2 \longrightarrow (\frac{3}{2})(-2) = -3$

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① $4c \times 3^a = \frac{2}{3} - \frac{1}{3}$) تقسیم $\longrightarrow 3^b = 3 \longrightarrow b = 1$

$4c \times 3^{a+b} = 8 - 1$

$f(x) = 1 + c \times 3^{ax+1} \longrightarrow f(-1) = 1 + (c \times 3^{a-1})$

① دوبار برابر حاصل $\xrightarrow{\text{قرینه}}$ $c \times 3^{a-1} = -\frac{1}{3} \times \frac{1}{3} = -\frac{1}{9} \longrightarrow f(-1) = 1 - \frac{1}{9}$

$= \frac{8}{9}$

۳

$c + \log_5^{(b)} = 2$

$c + \log_5^{(2/4a+b)} = 0$) اختلاف $\log_5^b - \log_5^{(2/4a+b)} = 2$

$25 = \frac{b}{2/4a+b} \longrightarrow 60a + 25b = b^{-24b} \longrightarrow \frac{a}{b} = -0/4$

$= -\frac{2}{5}$

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$|x^2 - 2| - x > 0$ $\begin{cases} x \geq \sqrt{2} \text{ و } x < -\sqrt{2} \longrightarrow x^2 - x - 2 \longrightarrow (x-2)(x+1) \\ \sqrt{2} > x > -\sqrt{2} \longrightarrow -x^2 - x + 2 \longrightarrow -(x+2)(x-1) \end{cases}$

الف $\longrightarrow$ $\frac{-1 \quad 2}{+ \; 0 \; - \; 0 \; +}$ $\longrightarrow (-\infty, -\sqrt{2}] \cup (2, +\infty)$

ب $\longrightarrow$ $\frac{-2 \quad 1}{- \; 0 \; + \; 0 \; -}$ $\longrightarrow [-\sqrt{2}, 1)$

$\longrightarrow$ اجتماع $\longrightarrow D_f = (-\infty, 1) \cup (2, +\infty)$

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$f(x) = 2 + 2^{b-ax}$

$g(x) = -x^2 - 2x + 8$

$f(-1) = 10 \longrightarrow 2^{b+a} = 8 \longrightarrow b + a = 3$

$(1, \alpha) \longrightarrow -1 - 2 + 8 = 5 = \alpha$

$2^{b-a} = 2^2 \longrightarrow b - a = 1$

$\longrightarrow b = 2, a = 1 \longrightarrow 2b - a = 4 - 1 = 3$

$f(x) = -2 + (\frac{1}{2})^{Ax+B}$

$y = x^2 - x \longrightarrow (1,0)\ ,\ (2,2)$

$f(1) = -2 + (\frac{1}{2})^{A+B} = 0 \longrightarrow A+B = -1$

$f(2) = -2 + (\frac{1}{2})^{2A+B} = -1 \longrightarrow 2A+B = -1$

$\left.\begin{matrix} A=-1 \\ B=0 \end{matrix}\right)$

$f(3) = -2 + (\frac{1}{2})^{-3} = -2+8 = 6$

۶

$m_0 (\frac{8}{9})^{\frac{t}{12}} \longrightarrow (\frac{8}{9})^t = \frac{1}{4} \longrightarrow \log_{\frac{8}{9}}^{\frac{1}{4}} = t$

$\longrightarrow t = \frac{\log\frac{1}{5} - \log_5^4}{\log_5^8 - \log_5^9} = \frac{-\log_5^2 - \log_5^{2^2}}{3\log_5^2 - 2\log_5^2} = \frac{-\frac{1}{1,4} - \frac{1}{1,4}}{\frac{3}{1,4} - \frac{2}{1,4}}$

$= \frac{190}{10} = \frac{19}{2}\ h$

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$m_0 (\frac{7}{8})^{\frac{t}{12}+1} \longrightarrow (\frac{7}{8})^t = \frac{1}{7} \longrightarrow \log_{\frac{7}{8}}^{\frac{1}{7}} = t$

$\longrightarrow \frac{\log\frac{1}{2} - \log_2^7}{\log_2^7 - \log_2^8} = \frac{-\frac{10}{4}}{+\frac{10}{4} - \frac{3}{1,4}} = \frac{\frac{-10}{1,4}}{\frac{10-9}{1,4}} = \frac{-10}{-1}$

$\longrightarrow 10$ هفته $\longrightarrow 10 \times 7 = 70$ روز

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$L_0 (\frac{24}{25})^{\frac{t}{12}+1} \longrightarrow (\frac{24}{25})^t = \frac{1}{2} \longrightarrow t = \log_{\frac{24}{25}}^{\frac{1}{2}}$

$\longrightarrow \frac{\log\frac{1}{2} - \log 2}{\log 24 - \log 25} = \frac{-0,48}{\log 2 + \log 3 - 2\log 5} = \frac{-0,48}{-0,02}$

$= 24$ روز

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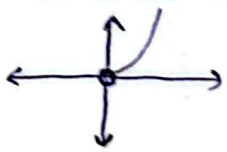
الف) $y = 9^{\log_3 x}$

① $x > 0$

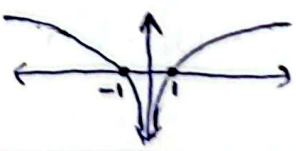
② $9^{\log_3 x} = x^{\log_3 9} = x^2$



ب) $\log x^2$

① $x^2 > 0 \longrightarrow x = R - \{0\}$

② $\log x^2 = 2\log x$



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