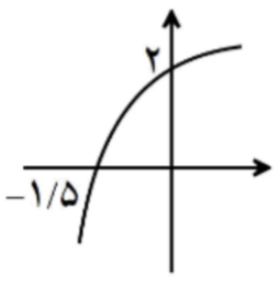


$y = 1 - \log_c^{(ax-b)}$

$b+c=-\frac{۳}{۲}$

$(a+c)b = ?$

$(1+\frac{1}{۲})\times(-۲) = \boxed{-۳}$

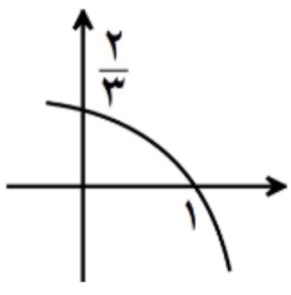
① $x=0 \to 1-\log_c^{-b}=۲ \to \log_c^{-b}=-1 \to b=-\frac{1}{c} \to -\frac{1}{c}+c=-\frac{۳}{۲}$

$c=\frac{1}{۲} \to b=-۲$

$c^۲-1=-\frac{۳}{۲}c \to c^۲+1,۵c-1=0$

$c=\frac{1}{۲}$ قبول — $c=-۲$ غیر قابل قبول $(c>0)$

$x=-1,۵ \to \log_{\frac{1}{۲}}^{-1,۵a+۲}=1 \to -1,۵a+۲=\frac{1}{۲} \to -1,۵a=-1,۵ \to a=1$



$f(x) = 1+c\times ۳^{ax+bx}$

$f(-1)=?$

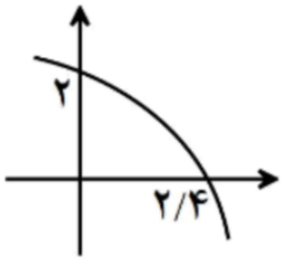
② $f(0)=1+c\times ۳^{a}=\frac{۲}{۳} \to c\times ۳^{a}=-\frac{1}{۳}$

$f(1)=1+c\times ۳^{a+b}=0 \to c\times ۳^{a+b}=-1$

$\div \to ۳^{b}=۳ \to b=1$

$f(-1)=1+c\times ۳^{a-1}=1+c\times\frac{-\frac{1}{۳c}}{۳}=1-1=0$

$۳^{a-1}=-\frac{1}{۳c}$



$y = c+\log_۵^{(ax+b)}$

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

③ $x=۲,۴ \to c+\log_۵^{۲,۴a+b}=0 \to ۲,۴a+b=۵^{-c}$

$x=0 \to c+\log_۵^{b}=۲ \to b=۵^{۲-c}$

$\to ۲,۴a=۵^{-c}-۵^{۲-c}$

$۲,۴a=۵^{-c}(1-۲۵)$

-۲۴

$\to a=-۱۰\times ۵^{-c}$

$\frac{a}{b}=\frac{-۱۰\times ۵^{-c}}{۵^{۲}\times ۵^{-c}}=-\frac{۲}{۵}=\boxed{-۰,۴}$

$y=\log_{۲}^{(|x^۲-۲|-x)}$

④ $\to |x^۲-۲|-x>0$

$x>۲ \to x^۲-۲-x>0 \to (x-۲)(x+1)>0$ (sign chart: -1, ۲; $+$ $-$ $+$) $\to x>۲$

$۲>x>-۲ \to ۲-x^۲-x>0 \to x^۲+x-۲<0$ (sign chart: -۲, 1; $-$ $+$ $-$) $\to 1>x>-۲$

$x<-۲ \to x^۲-۲-x>0 \to x<-۲$

$\cup \to D_f=(-\infty,-۲)\cup(-۲,1)\cup(۲,+\infty)$

$f(x)=۲+۲^{b-ax}$

⑤ $\to f(1)=۲+۲^{b-a}=۴ \to ۲^{b-a}=۲ \to b-a=1$ ①

$f(-1)=۲+۲^{b+a}=10 \to ۲^{b+a}=۲^{۳} \to b+a=۳$ ②

①, ② $\to b=۲, a=1 \to ۲(۲)-1=\boxed{۳}$

$g(x)=-x^۲-۲x+۸ \to g(1)=-1-۲+۸=۴$

$f(x)=-۲+(\frac{1}{۲})^{Ax+B}$

$y=x^۲-x$: $x=1 \to y=0$; $x=۲ \to y=۲$

⑥ $f(1)=-۲+(\frac{1}{۲})^{A+B}=0 \to (\frac{1}{۲})^{A+B}=۲ \to A+B=-1$

$f(۲)=-۲+(\frac{1}{۲})^{۲A+B}=۲ \to (\frac{1}{۲})^{۲A+B}=۴ \to ۲A+B=-۲$

$\to$

$A=-1, B=0$

$f(۳)=-۲+(\frac{1}{۲})^{-۳}=\boxed{۶}$

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⑦ $1=۹\times(\frac{۸}{۹})^{t} \to \frac{1}{۹}=(\frac{۸}{۹})^{t} \to \log_{\frac{۹}{۸}}=t \to \frac{\log_۵^{۲}+\log_۵^{۳}}{۲\log_۵^{۳}-۳\log_۵^{۲}}=\frac{\frac{۵}{۱۲}+\frac{۵}{۷}}{\frac{1۵}{۷}-\frac{1۵}{۱۲}} \to \frac{۲۵+۶۰}{۱۲۰-۱۰۵}=\frac{۹۵}{1۵}=\frac{1۹}{۳}$ سیکل $\times ۶$ $\to \boxed{۳۸۰ \text{ دقیقه}}$

۸

$\frac{1}{V} = (\frac{V}{\Lambda})^t \rightarrow \log_{\frac{\Lambda}{V}} \frac{V}{\Lambda} = t \rightarrow \frac{\log \frac{V}{\Lambda}}{\log \frac{\Lambda}{V}} = \frac{\log \frac{V}{\Lambda}}{-\log \frac{V}{\Lambda}} = -1$

$\frac{\log \frac{V}{\Lambda}}{\log \frac{\Lambda}{V}} = \frac{\frac{1}{4}}{\frac{3}{14} - \frac{1}{4}} = \frac{\frac{1}{4}}{\frac{140 - 140}{14 \times 4}} = 8$ روز

۹

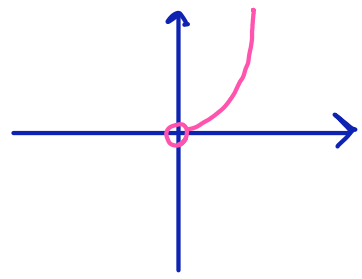
$\frac{1}{3} = (\frac{24}{25})^t \rightarrow \log_{\frac{25}{24}} \frac{24}{25} = t \rightarrow \frac{\log 3}{2\log 5 - (3\log 2 + \log 3)} = \frac{0,48}{1,4 - (0,9 + 0,48)} = \frac{0,48}{0,02} = 24$ روز

$1,38$

۱۰

$y = 4^{\log_3 x}$ $D = x > 0$

$y = x^{\log_3 4} = x^2$



$y = \log x^2$ $D = x \neq 0$

$y = 2\log x \quad x > 0$

$y = 2\log -x \quad x < 0$