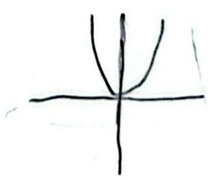
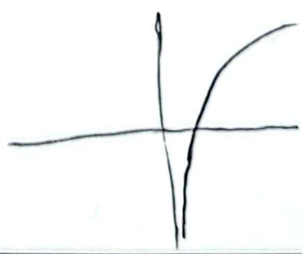
نام و نام خانوادگی ...آرین حجت... پاسخنامه تشریحی تکلیف شماره ...۲۵... کلاس ...یازدهم B...

۱	$x=0 \to y=2 \Rightarrow \log_c^{(a(0)-b)}=-1 \to c^{-1}=-b \to b+\frac{1}{c}=0$; $b+c=\frac{-3}{2}$ $\Big\}$ $c=\frac{1}{2}$, $b=-2$ $x=-1.5 \to y=0 \Rightarrow \log_{\frac{1}{2}}^{(-\frac{3}{2}a+2)}=1$ $\to 2-\frac{3}{2}a=\frac{1}{2} \to a=1$ $\quad (a+c)b=\frac{3}{2}\times(-2)=-3$
۲	$x=0 \to y=\frac{2}{3} \Rightarrow 1+c\times 3^{a+b}=\frac{2}{3} \to c\times 3^{a}=-\frac{1}{3}$ $x=1 \to y=0 \Rightarrow c\times 3^{a+b}=-1$ $\quad \frac{3^{a}}{3^{a}\times 3^{b}}=\frac{1}{3} \to b=1$ $f(-1)=1+3^{a-b}=1+\frac{1}{3}=\frac{4}{3}$ $\quad \frac{c\times 3^{a-b}}{c\times 3^{a}}=\frac{3^{-1}}{\frac{1}{3}}=-1$
۳	$x=0 \to y=2 \to \log_a^{b}+c=2 \to \log_a^{b}-2=-c \to \log_a^{\frac{b}{2}}=-c$ $x=2.4 \to y=0 \to \log_a^{2.4a+b}=-c \Rightarrow 2.4a+b=\frac{b}{2} \to 2.4\frac{a}{b}+1=\frac{1}{2}$ $\to \frac{a}{b}=\frac{-1}{4.8}$
۴	$\lvert x^2-2\rvert-x\geq 0 \to \lvert x^2-2\rvert\geq x \to x^2-2\geq x \;,\; x^2-2\leq -x$ $x^2-x-2\geq 0 \to D=(-\infty,-1)\cup(2,+\infty)$ $x^2+x-2\leq 0 \to D=(-2,1)$ $\Big\}\cup \to D_f=\mathbb{R}-[1,2]$
۵	$x=1 \to y=4 \Rightarrow 2+2^{b-a}=4 \to 2^{b-a}=2 \to b-a=1$ $x=-1 \to y=10 \Rightarrow 2+2^{b+a}=10 \to 2^{b+a}=8 \to b+a=3$ $\Big\}$ $b=2$, $a=1$ $2b-a=4-1=3$

$x=1 \to y=0 \Rightarrow (\frac{1}{2})^{A+B}=2 \to A+B=-1$ $x=2 \to y=2 \Rightarrow (\frac{1}{2})^{2A+B}=4 \to 2A+B=-2$ $A=-1$ و $B=0$ $f(3)=-2+(\frac{1}{2})^{-3}=-2+8=6$	۶
$(\frac{8}{9})^x=\frac{1}{6} \to \log_{\frac{8}{9}}^{\frac{1}{6}}=x \to \frac{\log_5^{\frac{1}{6}}}{\log_5^{\frac{8}{9}}}=\frac{\log_5^1-\log_5^6}{\log_5^8-\log_5^9}$ $=\frac{0-\log_5^2-\log_5^3}{3\log_5^2-2\log_5^3}=\frac{-(\frac{1}{2.4}+\frac{1}{1.4})}{3\times\frac{1}{2.4}-2\times\frac{1}{1.4}}=215\ min$	۷
$(\frac{7}{8})^x=\frac{1}{7} \to \log_{\frac{7}{8}}^{\frac{1}{7}}=x \to \frac{\log_3^{\frac{1}{7}}}{\log_3^{\frac{7}{8}}}=\frac{\log_3^1-\log_3^7}{\log_3^7-3\log_3^2}$ $=\frac{0-\frac{1}{0.6}}{\frac{1}{0.6}-3\times\frac{1}{1.6}}=8\times7=56$	۸
$(\frac{96}{100})^x=\frac{1}{3} \to \log_{\frac{96}{100}}^{\frac{1}{3}}=x \to \frac{\log_{10}^{\frac{1}{3}}}{\log_{10}^{\frac{96}{100}}}=\frac{\log_{10}^1-\log_{10}^3}{\log_{10}^{96}-\log_{10}^{100}}$ $=\frac{0-0.48}{\log_{10}^3+5\times\log_{10}^2-2}=\frac{-0.48}{0.48+5\times0.3-2}=\frac{-0.48}{-0.02}=$ ۲۴ روز	۹
الف) $9^{\log_3^x}=x^{\log_3^9}=x^2$  ب) $y=\log_{10}^{x^2}$ → 	۱۰