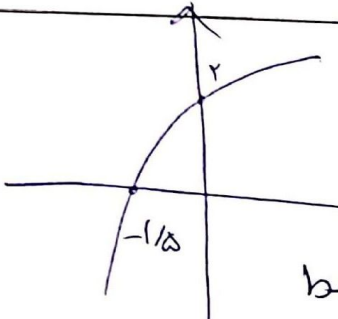
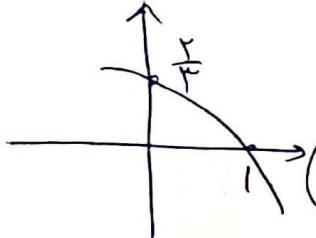


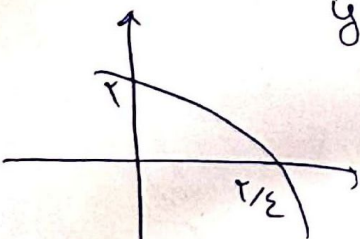
نام و نام خانوادگی (رین سادات حسینی) پاسخنامه تشریحی تکلیف شماره ۱۰۰۰ کلاس از روز دهم



$y = \lg(ax-b)$ $x = -1/a$ $\lg(\frac{r}{a}-b)$ $x=0 \rightarrow 1 = \lg(\frac{r}{a}-b) \rightarrow c = \frac{r}{a}-b$
 $b+cs = \frac{r}{a} \rightarrow b+c(\frac{r}{a}-b) = \frac{r}{a} \rightarrow b + \frac{rc}{a} - bc = \frac{r}{a} \rightarrow bc = \frac{r}{a} - b$
 $x_s(0) \rightarrow 1 - \lg(-b) = r \rightarrow -1 = \lg(-b) \rightarrow \frac{1}{e} = -b$
 $b+c(\frac{r}{a}) = \frac{r}{a} \rightarrow c = \frac{r}{a} - b = \frac{r}{a} + \frac{1}{e}$
 $c^2 + \frac{r}{a}c - 1 = 0 \rightarrow 2c^2 + 3c - 1 = 0$
 $c = \frac{1}{2} \rightarrow b = -\frac{1}{2} \rightarrow (c+c)b = \frac{1}{2}(-\frac{1}{2}) = -\frac{1}{4}$
 $(c-1) = \frac{1}{2} - 1 = -\frac{1}{2}$
 $(c+1) = \frac{1}{2} + 1 = \frac{3}{2}$
 $(c-1)(c+1) = -\frac{1}{2} \times \frac{3}{2} = -\frac{3}{4}$



$f(x) = \lg(1+cx^a+bx)$ $f(1) = \lg(1+c+a+b) = 0$
 $e \times \frac{r}{a} = 1+c+a+b$
 $f(0) = \lg(1+c) = \frac{r}{a} \rightarrow c = \frac{r}{a} - 1$
 $c \times \frac{r}{a} = -1 \rightarrow \frac{r}{a} = -\frac{1}{c} \rightarrow b = -1 - \frac{1}{c}$
 $f(-1) = \lg(1+c(-1)^a+(-1)) = \lg(1+c(-1)^a-1) = \lg(c(-1)^a) = \frac{r}{a}$
 $\frac{r}{a} = \lg(c(-1)^a) = \lg(c) + \lg((-1)^a) = \lg(c) + a \lg(-1)$
 $\frac{r}{a} = \lg(c) + a \lg(-1) \rightarrow \frac{r}{a} - \lg(c) = a \lg(-1)$
 $\frac{r}{a} - \lg(\frac{r}{a}-1) = a \lg(-1)$
 $\frac{r}{a} - \lg(\frac{r}{a}-1) = a \lg(-1)$



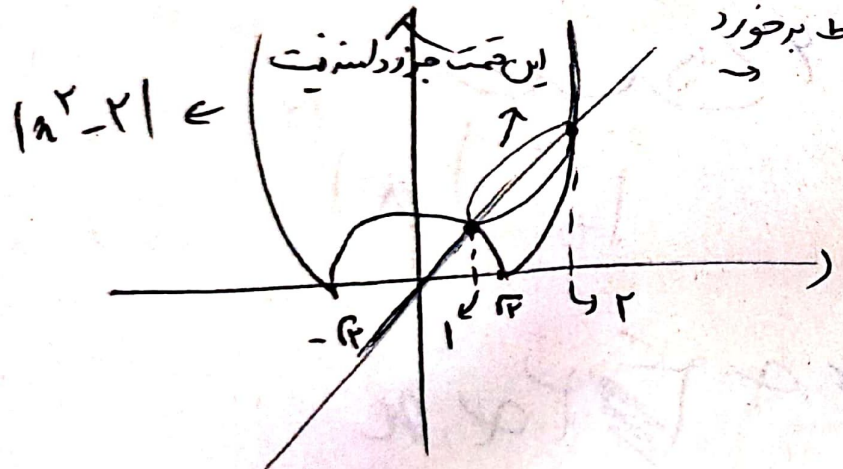
$y = \lg(ax+b)$ $x = r/a$ $\lg(\frac{r}{a}a+b)$
 $x=0 \rightarrow c + \lg b = r \rightarrow c = r - \lg b$
 $r = \lg(\frac{r}{a}a+b) = \lg(r+b)$
 $r = \lg(r+b) \rightarrow \frac{r}{a} = \lg(r+b)$
 $\frac{r}{a} = \lg(r+b) \rightarrow \frac{r}{a} = \lg(r+b)$
 $\frac{r}{a} = \lg(r+b) \rightarrow \frac{r}{a} = \lg(r+b)$
 $\frac{r}{a} = \lg(r+b) \rightarrow \frac{r}{a} = \lg(r+b)$

۴)

$$f(x) = |x^2 - 2| - a$$

$$|x^2 - 2| > a \rightarrow |x^2 - 2| > a$$

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نقطه برخورد $x^2 - 2 = a \rightarrow x^2 - a - 2 = 0 \rightarrow (x-2)(x+2) = 0$
 $x = 2$ و $x = -2$
 $2 - a^2 = a \rightarrow x^2 + a - 2 = 0 \rightarrow (x+2)(x-1) = 0$
 $x = -2$ و $x = 1$

$$\text{دامنه} = (-\infty, -2) \cup (1, +\infty)$$

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

$$g(x) = -x^r - x^{r+1} \xrightarrow{x=1} -1 - r + 1 = r$$

$$f(1) = x + x^{b-a} = r \rightarrow x = x^{b-a} \rightarrow (b-a = 1)$$

$$f(-1) = 10 \rightarrow x + x^{b+a} = 10 \rightarrow x^{b+a} = 9 \rightarrow b+a = r$$

$$\frac{x^{b+a} = 9}{x^b = 9} \rightarrow b = r \rightarrow a = 1$$

$$x^{b-a} = x^{-1} = x^{-r}$$

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