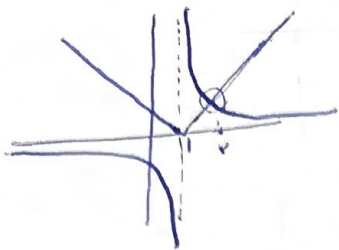


یازدهم کلاس B

۱۹، ۷۵ آفدین!

پرهام مقنری



۱- معادله $\frac{1}{x-1} = |x-1|$ (۲)
 خط جواب داریم ✓

۲- $\left| \frac{x-1}{x} \right| < 2$ (۱، ۷۵)

$-\infty$	$\frac{1}{x}$	0	1	$+\infty$
$\frac{1-x}{-x} < 2$	$\frac{1-x}{x} < 2$	$\frac{x-1}{x} < 2$		
$1-x < -2x$	$1-x < 2x$	$x-1 < 2x$		
$x < -1$	$1 < 3x$	$-1 < x$		
	$\frac{1}{3} < x$			

مجموعه جواب: $x < -1$ و $\frac{1}{3} < x$

$\left| \frac{x-2}{x+1} \right| > 1$

$-\infty$	$-\frac{1}{x}$	1	$+\infty$
$\frac{x-2}{-x-1} > 1$	$\frac{x-2}{x+1} > 1$	$\frac{x-2}{x+1} > 1$	
$x-2 > -x-1$	$x-2 > x+1$	$x-2 > x+1$	
$2x > -3$	$-2 > 1$	$-2 > 1$	
$x > -\frac{3}{2}$	$-2 > 1$	$-2 > 1$	

مجموعه جواب: $x > -\frac{3}{2}$ و $x < -1$

$x < |x+4|$

$-\infty$	-4	$+\infty$
$x < -x-4$	$x < x+4$	
$2x < -4$	$x < x+4$	
$x < -2$	$x < x+4$	

مجموعه جواب: $x < -2$

$\left| x - \frac{1}{x} \right| < 2,5$ (۲)

$x = \frac{1}{x}$ ✓

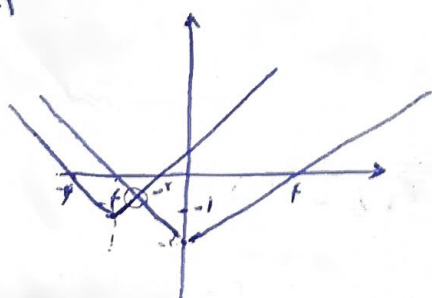
$y = |x+1| - |x| + |x-2|$

$R_f = [-1, 2]$

$-1 + 2 = 1$ ✓

$-\infty$	-1	0	1	$+\infty$
$-x-1+x-2$	$x+1-x-2$	$x+1-x-2$	$x+1-x-2$	
$-2x-3$	-1	-1	-1	

$y = \left| \frac{1}{x} x + 2 \right| - 1$



$y = \left| \frac{1}{x} x + 2 \right| - 1$

$-\frac{1}{x} x - 2 = \frac{1}{x} x + 2 - 1$
 $-3 = x$ ✓

$$f(a) = [|1-x| - |x+f|]$$

$$\begin{array}{c|c|c} -f & 1 & \\ \hline 1-x+x+f & 1-x-x+f & x-1-x-f \\ a & 1-x & -a \\ & -x & \end{array}$$

(2)

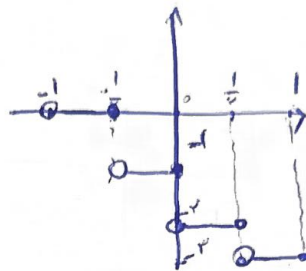
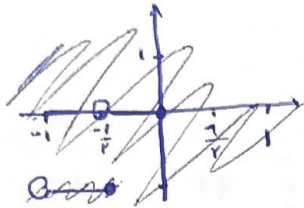
$$R_f = [-a \quad a] \xrightarrow{[]} R_f = \{-a, -f, \dots, f, a\}$$

$$f(a) = \frac{1}{a} - \left[\frac{x+1}{a} \right] \quad -1 + \frac{1}{a} - \left[\frac{1}{a} \right] \rightarrow R_f = [-1, 0]$$

$0 < y < 1$

$$y = [-x] - 1$$

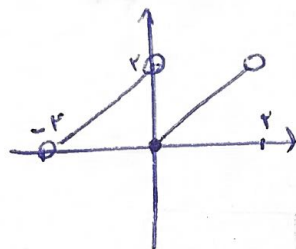
- 0 $-1 < x < -\frac{1}{2}$
- 1 $-\frac{1}{2} < x < 0$
- 2 $0 < x < \frac{1}{2}$
- 3 $\frac{1}{2} < x < 1$



(2)

$$y = x - 2 \left(\frac{x}{2} \right)$$

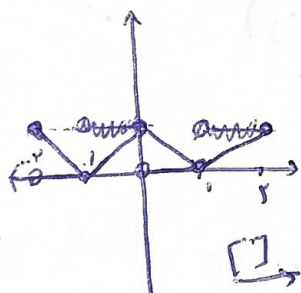
- $x+2$ $-2 < x < 0$
- x $0 < x < 2$



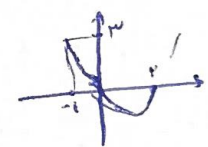
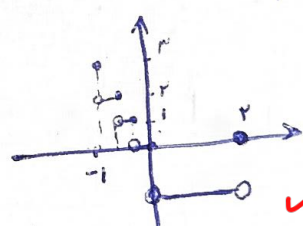
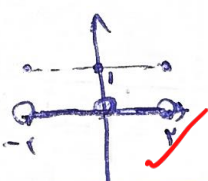
✓

$$[|x| - 1]$$

- 1 $x=1$
- 0 $-1 < x < 1$
- 1 $-2 < x < -1$
- 0 $-3 < x < -2$
- 1 $-4 < x < -3$



$$[x^2 - 2]$$



(2)

$$a + [b] = f, r$$

$$b - [a] = r, f$$

$$[a] + [b] = f \quad (b) - [a] = r$$

$a = f \quad b = r$

$$\begin{array}{l} a = 1, r \\ b = r, f \end{array}$$

$$r, f + 1, r = f, r$$

(2)

$$(1+\sqrt{r})^4 + (1-\sqrt{r})^4 = 19\Lambda \quad = (1+\sqrt{r})^4 + (1-\sqrt{r})^4 = 19\Lambda$$

$$t = 19V, \quad t = -0.756$$

$t + \frac{1}{t} = 19\Lambda$

$$r^2 = 19\Lambda t + 1 = \dots$$

(2)

$$(1+\sqrt{r})^4 = 9\Lambda$$

$(1+\sqrt{r})^4 = 9\Lambda$