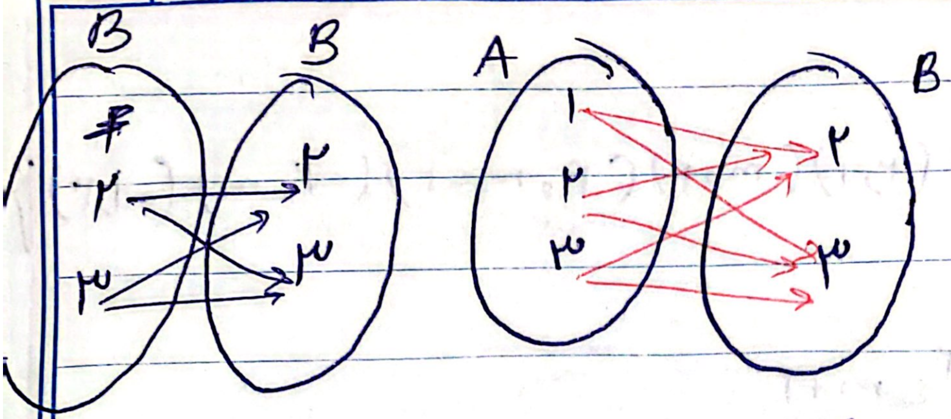


به دلیل عدم وجود
نام و نام خانوادگی
۰

$A \times B = \{(1,2)(1,3)\cancel{(2,2)}\cancel{(2,3)}\cancel{(3,2)}\cancel{(3,3)}\}$

$B \times B = \{\cancel{(2,2)}\cancel{(2,3)}\cancel{(3,2)}\cancel{(3,3)}\}$

$A - B = \{(1,2)\ (1,3)\}$

$m^2 = m + 2$

$m^2 - m - 2 = 0$

$(m-2)(m+1) \begin{cases} m = 2 \\ m = -1 \end{cases}$ ق ق

$\{(3, m^2), (2,1)(-3, m), (-2, m)(3, m+2)\ (m, 4)\}$

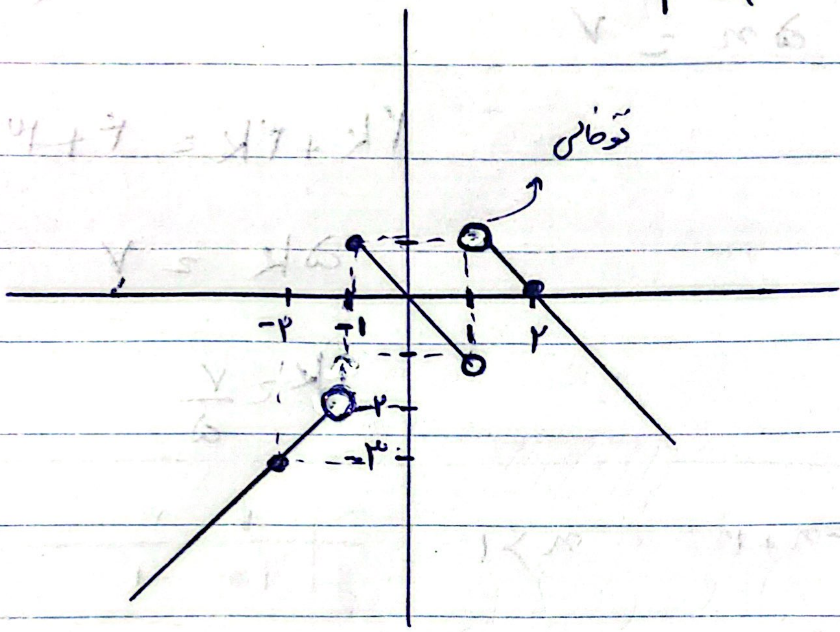
if $2 \rightarrow \{(3,4)\ (2,1)\ (-3,2)\ (-2,2)(3,4)$ ...

$$f(x)\begin{cases} -x+2 & ; \ x>1 \\ -x & ; \ -1\leq x<1 \\ x-1 & ; \ x<-1 \end{cases}$$

x	1	2
y	1	0

x	-1	1
y	1	-1

	-1	-2
	-2	-3



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۶ -

$$2y^3+x^2+1=0$$

$$2y_1^3=-1-x^2$$

$$2y_2^3=-1-x^2$$

تابع است

$$\cancel{2}y_1^3=\cancel{2}y_2^3$$

$$y_1^3=y_2^3 \rightarrow y_1=y_2 \ ✓$$

x	$-\infty$		1		2		6		8		$+\infty$
x^2-7x+6		$+$	0	$-$		$-$	0	$+$		$+$	
$x^2-10x+16$		$+$		$+$	0	$-$		$-$	0	$+$	
		$+$	0	$-$		$+$	0	$-$		$+$	

$$(-\infty, 1) \cup (2, 6] \cup (8, +\infty)$$

$(x-6)(x-1)$

$$\frac{x^2-7x+6}{x^2-10x+16} \geq 0$$

$x-10x+16=0$

$-9x+16=0$

$16-9x=0$

$16=9x$

$\frac{16}{9}=x$

	$-\infty$		1		$\frac{16}{9}$		6		$+\infty$
x^2-7x+6		$+$	0	$-$		$-$	0	$+$	
$x-10x+16$ / $-9x+16$		$+$		$+$	0	$-$		$-$	
		$+$		$-$		$+$		$-$	

$$(-\infty, 1] \cup \left(\frac{16}{9}, 6\right]$$

۴-

$$f(x)=\begin{cases} ۲x-۳ , & x\geq k \\ ۴-۳x , & x\leq k \end{cases}$$

$$x=k$$

$$۲k-۳=۴-۳k$$

$$۲k+۳k=۴+۳$$

$$۵k=۷$$

$$k=\frac{۷}{۵}$$

date: .... Sub: ....

$$\sqrt{\frac{x-1}{x-3}} + \sqrt{\frac{2-x}{x}}$$

$x=1$ $\qquad$ $x=2$

$\frac{x-1}{x-3} \geq 0$ $\qquad$ $\frac{2-x}{x} \geq 0$

$x=3$ $\qquad$ $x=0$

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

$D_f \quad [1,2] \cup (3,+\infty)$

$$\frac{\sqrt{x^2-7x+6}}{\sqrt{x-10x+16}} \qquad \sqrt{\frac{x^2-7x+6}{x-10x+16}} \qquad x^2-7x+6=0$$

$(x-6)(x-$

$x-10x+16$ $\qquad$ $\frac{x^2-7x+6}{x-10x+16} \geq 0$

$(x-8)(x-2) \langle \begin{smallmatrix} 8 \\ 2 \end{smallmatrix}$

$g(x) = \{(۳, m^۲)(۲,۱)(m,۴)(۳, m+۲)(-۲, m)(-۱,۳)\}$

$m^۲ = \underline{m+۲}$

$m^۲ - m - ۲ = ۰$ $\quad m = ۲$ ق ق $\quad m = ۱$

$(m-۲)(m+۱)$

۳

$x^۲ - ۱ = ax + b$

$(۱)^۲ - ۱ = a + b$

$۰ = a + b$ $\qquad \{ ۸x - ۸ = \underline{۶۴}$

$a = -b$ $\qquad \underline{a = ۸}$

$-bx + b =$

a

$-۲b + b = ۸$

$-b = ۸$

$\underline{b = -۸}$

$$x^2+4y^2-2x-12y+10=0 \longrightarrow x=0$$

$$4y^2-12y+10=0$$

$$x\sin y = y\sin x$$

$$30 \times \sin 60 = 60 \times \sin 30$$

$$15\ \cancel{30}\times\frac{\sqrt{3}}{\cancel{2}} = \overset{30}{\cancel{60}}\times\frac{1}{\cancel{2}}$$

$$15\sqrt{3} \neq 30$$

$$\sqrt{\frac{x^2+y^2}{xy}} = 2$$

$1\ ,\ 2 \rightarrow$

date: Sub:

$$\sqrt{\frac{2x^2-5x+3}{3x^2-7x+4}}$$

$$\frac{2x^2-5x+3}{3x^2-7x+4} \geq 0$$

$$3x^2-5x+2 \geq 0$$

$$\frac{5 \pm 1}{2 \times 2} \begin{cases} \frac{3}{2} \\ 1 \end{cases} \longrightarrow \frac{3}{2} \nleq x \nleq 1$$

$$\frac{7 \pm 1}{6} \begin{cases} 1 \\ \frac{4}{3} \end{cases}$$

$$3x^2-7x+4=0$$

$$D = (-\infty, 1) \cup \left[\frac{3}{2}, +\infty\right)$$

$$\Delta = (-7)^2 - 4(3)(4) = 1 \quad \text{مخرج}$$

$$\frac{7 \pm 1}{6} \begin{cases} 1 \\ \frac{4}{3} \end{cases} \longrightarrow \frac{4}{3} < x < 1$$

$$2x^2-5x+3 \geq 0 \longrightarrow 2x^2-5x+3 = 0$$

$$\Delta = (-5)^2 - 4(2)(3) = 1$$

$$\frac{2x-3}{3x-4} \geq 0$$

$$\frac{2x^2-5x+3}{3x^2-7x+4} \geq 0 \longrightarrow 3x^2-7x+4 \neq 0$$

$$\frac{(2x-3)(x-1)}{(3x-4)(x-1)}$$

$$D = (-\infty, 1) \cup \left(1, \frac{4}{3}\right) \cup \left[\frac{3}{2}, +\infty\right)$$