

الف)

$$y = 2x^2 + x \rightarrow \begin{cases} y_1 = 2x^2 + x \\ y_2 = 2x^2 + x \end{cases} \rightarrow y_1 = y_2 \rightarrow y_1 = y_2 \Rightarrow \text{تبع است}$$

ب)

$$|y| = -x^2 + x + 3 \xrightarrow{x=0} |y| = 3 \rightarrow y = \pm 3 \rightarrow \text{تبع نیست}$$

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ج)

$$\sqrt{x-4} + |y-2| = 0 \rightarrow \sqrt{x-4} = -|y-2| \rightarrow x=4, y=2 \rightarrow \text{نقطه از این تابع است}$$

د)

$$x = \cos y \xrightarrow{x=0} y = \frac{\pi}{2}, \frac{3\pi}{2} \Rightarrow \text{تبع نیست}$$

الف)

$$\frac{x+f}{x^2-fx} \rightarrow x=0, \pm f \quad \frac{-f}{-f+f} + \frac{f}{-f+f} \quad D_f = [-f, 0) \cup (f, +\infty)$$

ب)

$$\frac{x+f}{x^2-fx+14} \rightarrow x=-f \quad D_f = \mathbb{R}$$

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ج)

$$\frac{x+f}{x^2+x+f} \rightarrow \Delta < 0, r_1, r_2 \quad D_f = \mathbb{R}$$

$$\frac{x+f}{x^2-fx^2} \Rightarrow x=0, \pm r, \pm f \quad \frac{-f}{-f-f} + \frac{-r}{-f-f} + \frac{0}{-f-f} + \frac{r}{-f-f} \quad D_f = (-\infty, -f] \cup (-r, 0) \cup (r, +\infty)$$

الف)

$$\frac{\sqrt{4-x}}{A} + \frac{\sqrt{x-2}}{B} \rightarrow D_A = (-\infty, 4] \quad D_A \cap D_B = [2, 4]$$

$$D_B = [2, +\infty)$$

ب)

$$\frac{x+1}{x^2+1} \rightarrow D_f = \mathbb{R}$$

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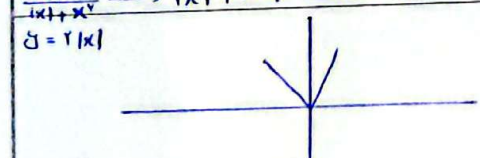
ج)

$$\frac{\sqrt{x-2}}{x-f} \rightarrow x-2 \geq 0 \rightarrow x \geq 2 \rightarrow D_f = [2, +\infty) - \{f\}$$

د)

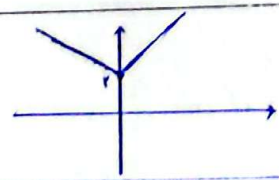
$$\frac{rx+r}{1x+x^2} \rightarrow |x| + x^2 \neq 0 \rightarrow |x| \neq -x^2 \rightarrow D_f = \mathbb{R} - \{0\}$$

الف)



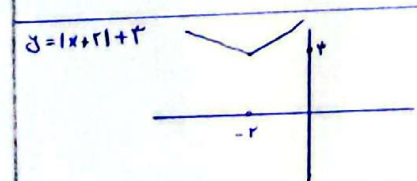
ب)

$$y = |x| + 2$$



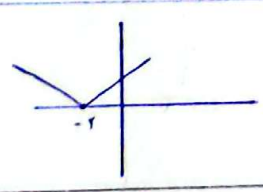
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ج)

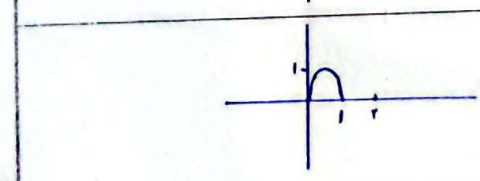


د)

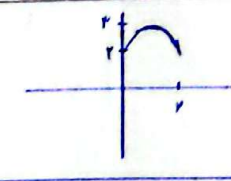
$$y = |x+2|$$



الف)

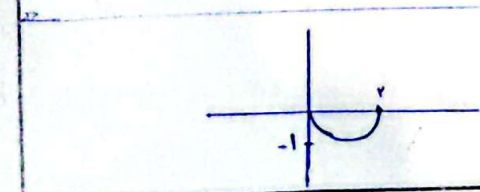


ب)

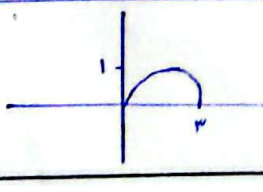


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ج)



د)



$\sum_{i=1}^n \frac{1}{i^2}$	$\frac{1}{-1} + \frac{1}{1} - \frac{1}{1} +$	(الف)	6
$\sum_{i=1}^n \frac{1}{i^2}$	$\frac{1}{+1} - \frac{1}{1} - \frac{1}{1} +$	(ب)	
$\sum_{i=1}^n \frac{1}{i^2}$	$\frac{1}{-1} + \frac{1}{1} - \frac{1}{1} +$	(الف)	7
$\sum_{i=1}^n \frac{1}{i^2}$	$\frac{1}{+1} - \frac{1}{1} - \frac{1}{1} +$	(ب)	
$y = \frac{x^3 - 3x + 2}{x - 2} = \frac{(x-1)^2(x+2)}{x-2}$	$\sum_{i=1}^n \frac{1}{i^2}$	(الف)	8
$y = \frac{x^3 - 3x + 2}{x^2 - 4x + 4} = \frac{(x-1)^2(x+2)}{(x-2)(x-1)}$	$\sum_{i=1}^n \frac{1}{i^2}$	(ب)	
$y = \frac{x^2 - x^2}{x^2 + x + 2} = \frac{x^2(x+1)(x-1)}{x^2 + x + 2}$	$\sum_{i=1}^n \frac{1}{i^2}$	(الف)	9
$y = \frac{x^2 - x^2}{x^2 + x + 2} = \frac{x^2(x+1)(x-1)}{x^2 + x + 2}$	$\sum_{i=1}^n \frac{1}{i^2}$	(ب)	
$\frac{x^2 - 1}{x^2 - x} \geq 0 \rightarrow \frac{(x+1)(x-1)}{x(x-1)} \geq 0$	$\sum_{i=1}^n \frac{1}{i^2}$	(الف)	10
$\frac{x^2 - 1}{x^2 - x} \geq 0 \rightarrow \frac{(x+1)(x-1)}{(x-1)(x-1)} \geq 0$	$\sum_{i=1}^n \frac{1}{i^2}$	(ب)	