

۱۲، ۲۵

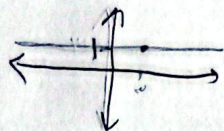
الف) $y^3 = 2x^2$ هست
 $y^3 = 8 \rightarrow y = 2$ $\rightarrow$ $x = 2$

ب) $\sqrt{x-4} + |y-2| = 0$ هست
 $x=4 \rightarrow |y-2|=0 \rightarrow y=2$

ب) $|y| + x^2 = x^2$ نیست $(1, 5)$
 $|y| = 3 \rightarrow y = \pm 3$

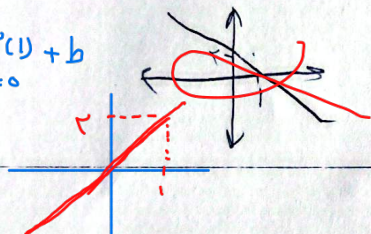
ج) $y = \cos y$ نیست
 $0 \leq y \leq 2\pi$

الف) ثابت گذرا $|1|$
 $y=k \rightarrow y=1$



(1)

$y = ax + b$ $a=2$ $b=0$
 $y = 2x$



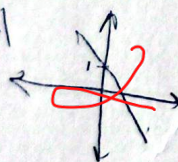
ب) نفی گذرا $|1|$ یا $|2|$ است
 $a+2b$

الف) $y = x^2 + ax + b$ سبی $(1, 5)$
 $1 = 1 + 2a + b$
 $-3 = 2a + b$

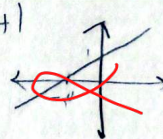
ب) $y = x^2 + ax + b$ $y = x^2$

پایین صفحه

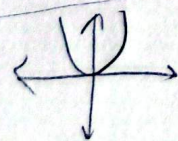
الف) $y = 2x + 1$



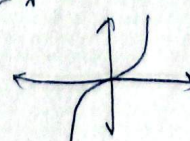
ب) $y = -3x + 1$



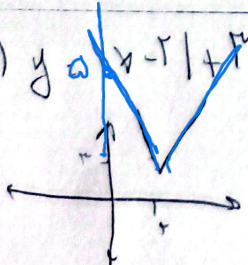
ج) $y = x^4$



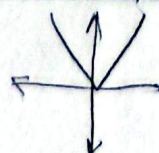
د) $y = x^4$



الف) $y = |x-2| + 3$

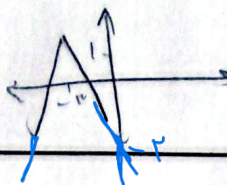


ب) $y = |x|$



به عرضی از میزبان خود

$y = -|x+3| + 1$



الف) $y = \frac{x+2}{x^2-4x}$ پایین صفحه بنویس
 $D_f = R - \{0, 4\}$ (۱۶)

ب) $y = \frac{x+2}{x^2-7x+14}$ (۱۷)
 $D_f = R - \{2, 5\}$

ج) $y = \sqrt{x-2} + \sqrt{x-1}$ (۱۸)
 $D_f = [2, \infty)$
 $x-2 \geq 0 \Rightarrow x \geq 2$
 $x-1 \geq 0 \Rightarrow x \geq 1$
 $x \geq 2$

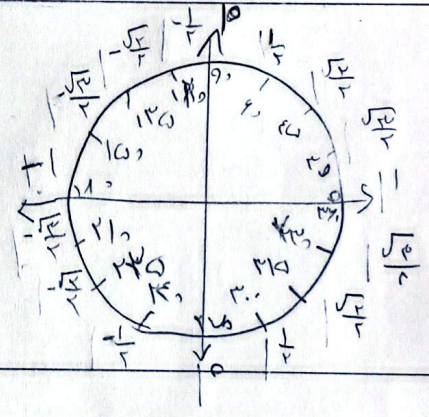
د) $y = \frac{\sqrt{x-2}}{x-2}$ (۱۹)
 $D_f = [2, \infty)$
 $x-2 \geq 0 \Rightarrow x \geq 2$
 $x-2 \neq 0 \Rightarrow x \neq 2$
 $x > 2$

۲) $y = \frac{x+2}{x^2+x+4}$ (۲۰)
 $D_f = R - \{-4, 3\}$

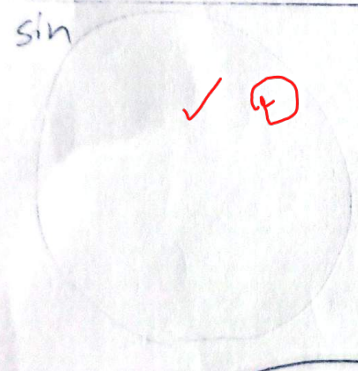
۳) $y = \frac{x+2}{x^2-5x+2}$ (۲۱)
 $D_f = (-\infty, 2) \cup (2, \infty)$

۴) $y = \frac{3x+1}{x^2+1}$ (۲۲)
 $D_f = R$

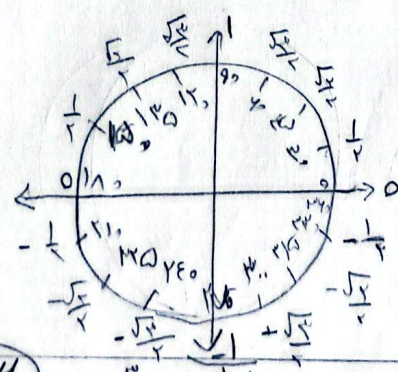
۵) $y = \frac{2x+1}{1x^2+4x}$ (۲۳)
 $D_f = R - \{0, -4\}$



✓ (۲۴)



✓ (۲۵)



$\frac{4\pi}{9}, \frac{\pi}{9}$

$\frac{2\pi}{9} \rightarrow \cos = -\frac{1}{2}$ (۲۶)

$\frac{5\pi}{9}, \frac{4\pi}{9}$

$\frac{11\pi}{9} = \pi + \frac{2\pi}{9}$ (۲۷)

✓ (۲۸)

۱- الف، این رابطه تابع است و نباید مثال قضی بزنیم

تعریف ریاضی

$$\begin{aligned} y_1^2 &= 2x_1^2 + x_1 \\ y_2^2 &= 2x_2^2 + x_2 \end{aligned} \xrightarrow{x_1 = x_2 = x} \begin{aligned} y_1^2 &= 2x^2 + x \\ y_2^2 &= 2x^2 + x \end{aligned} \rightarrow y_1^2 = y_2^2 \rightarrow y_1 = y_2$$

تابع است.

نمونه ضابطه تابع هانی $y = x$ است پس $b = 0$ و $a = 1$ است یعنی

الف)

$$a + 2b = 1 + 2(0) = 1$$

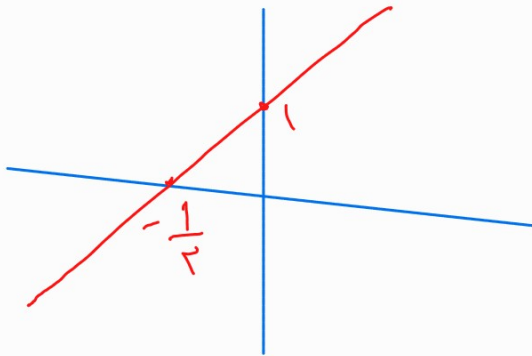
ب)

$$x_5 = -\frac{b}{2a} = -\frac{a}{2} = 2 \rightarrow a = -4$$

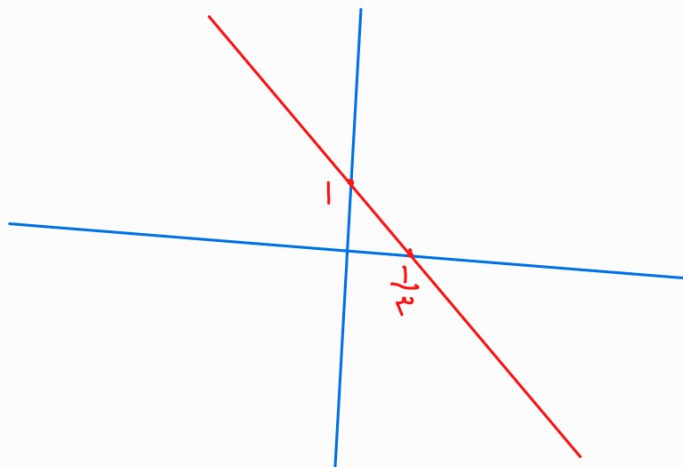
$$y_5 = 1 \rightarrow (2)^2 - 4(2) + b = 1 \rightarrow b = 5$$

$$\rightarrow a + 2b = -4 + 2(5) = 6$$

۴- الف



ب)



$$y = \frac{x+f}{x^2 - vx + 14}$$

1.4

$$\rightarrow x^2 - vx + 14 \neq 0 \rightarrow \Delta = (-v)^2 - 4(14) < 0 \rightarrow D_f = \mathbb{R}$$

$$y = \frac{x+f}{x^2 + x + f}$$

1.2

$$\rightarrow x^2 + x + f \neq 0 \rightarrow \Delta = (1)^2 - 4(f) < 0 \rightarrow D_f = \mathbb{R}$$

$$y = \frac{x+f}{x^2 - fx^2}$$

1.3

$$x^2 - fx^2 \neq 0 \rightarrow x^2(x^2 - f) \neq 0 \rightarrow \begin{aligned} & x \neq 0 \\ & x \neq \pm \sqrt{f} \end{aligned}$$

$$y = \frac{\sqrt{x-1}}{x-f} \rightarrow x \geq 1$$

$$x-f \rightarrow x-f \neq 0 \rightarrow x \neq f$$

$$D_f = [1, +\infty) - \{f\}$$

1.5-V

$$D_f = \mathbb{R} - \{0\}$$

1.6