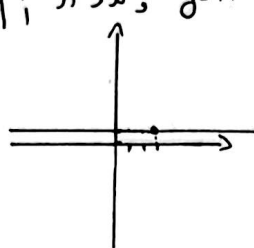
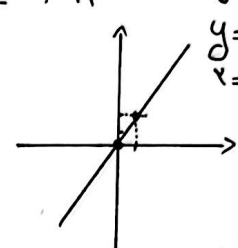
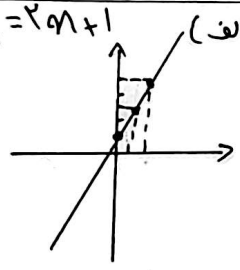
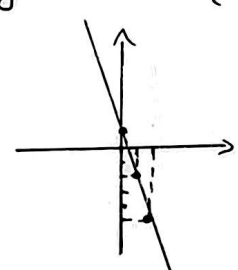
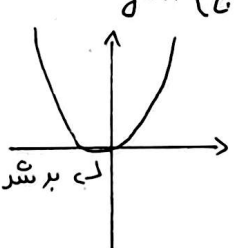
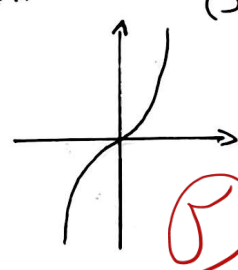
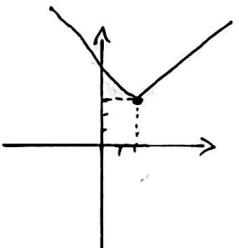
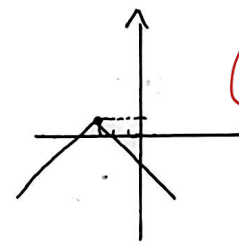


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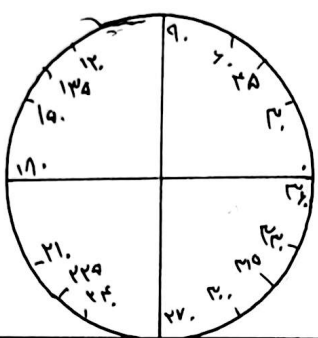
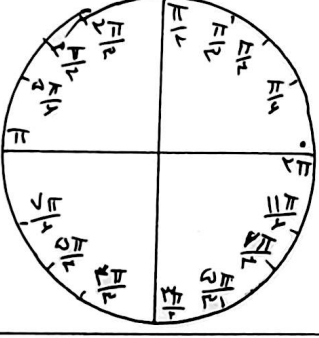
نام و نام خانوادگی .. پر. د. ی. ک. آ. ه. ... پاسخنامه تشریحی تکلیف شماره ۳ ... کلاس دهم ... دبیران "A"				
الف) $y^3 - x = 2x^2$ $y^3 - x_1 = 2x_1^2$ $y^3 - x_2 = 2x_2^2$ $y^3 - x_1 = y^3 - x_2 \rightarrow$ $-x_1 = -x_2 \rightarrow x_1 = x_2$ <u>تابع است</u>	ب) $ y + x^2 = x + 3$ $x = 0 \Rightarrow y = 3$ $\Rightarrow y = \pm 3$ <u>تابع نیست</u>	ج) $ x-3 + y-2 = 0$ در مطلق $\oplus$ فقط نقطه $(3, 2)$ که این کند $\rightarrow$ شکل را فصل محدود به بار تصاویر ارائه <u>تابع است</u>	د) $x = \cos y$ $x = 0 \Rightarrow \cos y = 0$ $\Rightarrow y = \pi/2, 3\pi/2, \dots$ <u>تابع نیست</u>	۱
تابع ثابت " $y=k$ " و گذرا از $1/3$: 	تابع خطی " $y=ax+b$ " و گذرا از $1/3$ با شیب ۲ : $y = 2x + 0 \Rightarrow y = 2x$ $2 = 2 \cdot 1/3 + 0$ 	۲		
تابع صافی " $y=ax+b$ " (الف) $y = ax + b \xrightarrow{\text{تابع صافی}} x = a + b \rightarrow$ $a = 1, b = 0 \Rightarrow a + 2b = 1$	مختصات شیب تابع $1/3$: $y = x^2 + ax + b \rightarrow y = ax^2 + bax + c$ $\frac{-b}{2a} \Rightarrow 2 = \frac{-b}{2} \Rightarrow b = -4$ $\frac{-a}{2a} \Rightarrow 1 = \frac{-(b+2a)}{2} = \frac{-(-4+2a)}{2} \Rightarrow 2 = -2 + 2a \Rightarrow 4 = 2a \Rightarrow a = 2$ $\Rightarrow a + 2b = 1 + (-4) \times 2 = -7$			۳
$y = 2x + 1$ (الف) 	$y = -3x + 1$ (ب) 	$y = x^2$ (ج) 	$y = x^3$ (د) 	۴
الف) $y = x-2 + 3$ 	ب) $y = - x+3 + 1$ 			۵

پ) $15 = \frac{-b}{2a} = \frac{-a}{2} = 2 \rightarrow a = -4$

$y5 = 1 \rightarrow 1 = 4 - 4(2) + b$

$b = 5 \quad a + 2b = 4$

سوال ۳

$الف) y = \frac{x+3}{x^2-2x}$ $\hookrightarrow x(x-2)$ $\Rightarrow x=0, 2$ $D_f = \mathbb{R} - \{0, 2\}$	$ب) y = \frac{x+3}{x^2-\sqrt{4x+1}}$ $\frac{+ \sqrt{4x+1}}{2} = \text{ریشه ندارد}$ $D_f = \mathbb{R}$	$ج) y = \frac{x+3}{x^2+x+4}$ $\frac{-1 \pm \sqrt{1-14}}{2} = \text{ریشه ندارد}$ $D_f = \mathbb{R}$	$د) y = \frac{x+3}{x^2-2x}$ $\hookrightarrow x \cdot x(x+2)(x-2)$ $D_f = \mathbb{R} - \{-2, 0, 2\}$	۶
$الف) \sqrt{x-1} + \sqrt{x-2}$ $x \leq 4 \quad x \geq 2$ $2 \leq x \leq 4$ $\rightarrow D_f = [2, 4]$	$ب) y = \frac{x+1}{x^2+1}$ صفر نمی شود $D_f = \mathbb{R}$	$ج) y = \frac{\sqrt{x-2}}{x-2}$ $\hookrightarrow x \neq 2, x \geq 2$ $D_f = [2, +\infty) - \{2\}$	$د) y = \frac{x+3}{\sqrt{x+1}}$ $\oplus \oplus$ $D_f = \mathbb{R} - \{0\}$	۷
	$0^\circ, 360^\circ = 1$ $30^\circ = \frac{\sqrt{3}}{2}$ $45^\circ = \frac{\sqrt{2}}{2}$ $60^\circ = \frac{1}{2}$ $90^\circ = 0$	$120^\circ = \frac{1}{2}$ $135^\circ = \frac{\sqrt{2}}{2}$ $150^\circ = \frac{\sqrt{3}}{2}$ $180^\circ = -1$ $210^\circ = -\frac{\sqrt{3}}{2}$	$225^\circ = -\frac{\sqrt{2}}{2}$ $240^\circ = -\frac{1}{2}$ $270^\circ = 0$ $300^\circ = \frac{1}{2}$ $315^\circ = \frac{\sqrt{2}}{2}$	۸
	$0, 2\pi = 0$ $\frac{\pi}{6} = \frac{1}{2}$ $\frac{\pi}{4} = \frac{\sqrt{2}}{2}$ $\frac{\pi}{3} = \frac{\sqrt{3}}{2}$	$\frac{\pi}{2} = 1$ $\frac{2\pi}{3} = \frac{1}{2}$ $\frac{3\pi}{4} = \frac{\sqrt{2}}{2}$ $\frac{5\pi}{6} = \frac{\sqrt{3}}{2}$	$\pi = 0$ $\frac{7\pi}{6} = -\frac{1}{2}$ $\frac{5\pi}{4} = -\frac{\sqrt{2}}{2}$ $\frac{4\pi}{3} = -\frac{\sqrt{3}}{2}$	۹
$الف) \cos^2 \frac{\pi}{6} :$ $\cos \frac{\pi}{6} = \frac{\sqrt{3}}{2} \Rightarrow \frac{\sqrt{3}}{2} \Rightarrow \frac{3}{4} = \sin^2 \frac{\pi}{6}$ $\Rightarrow \frac{\pi}{6}, \frac{5\pi}{6}, \dots = \frac{\pi}{6} \text{ و } \frac{5\pi}{6}$ $2k\pi + \frac{\pi}{6} \text{ و } 2k\pi + \pi - \frac{\pi}{6}$	$ب) \cos^2 \frac{11\pi}{6} :$ $\cos \frac{11\pi}{6} = \frac{\sqrt{3}}{2} \Rightarrow \frac{\sqrt{3}}{2} \Rightarrow \frac{3}{4} = \sin^2 \frac{11\pi}{6}$ $\Rightarrow \frac{11\pi}{6}, \frac{5\pi}{6}, \dots \Rightarrow \frac{11\pi}{6} \text{ و } \frac{5\pi}{6}$ $\Rightarrow 2k\pi + \frac{11\pi}{6} \text{ و } 2k\pi + \frac{5\pi}{6}$	۱۰		