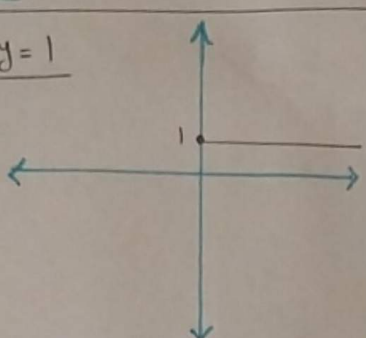
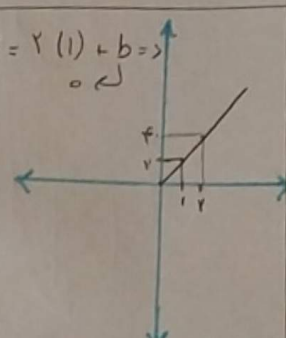
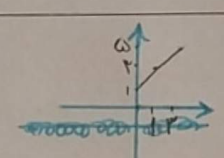
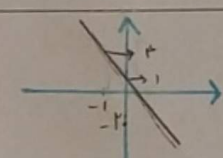
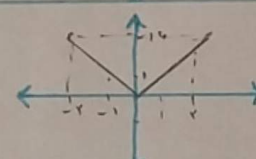
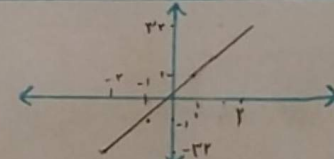
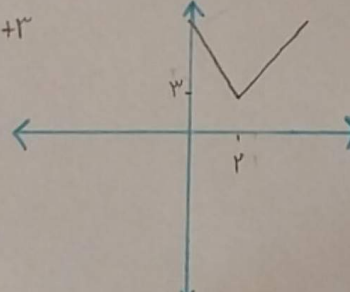
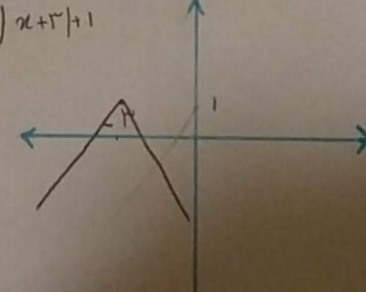
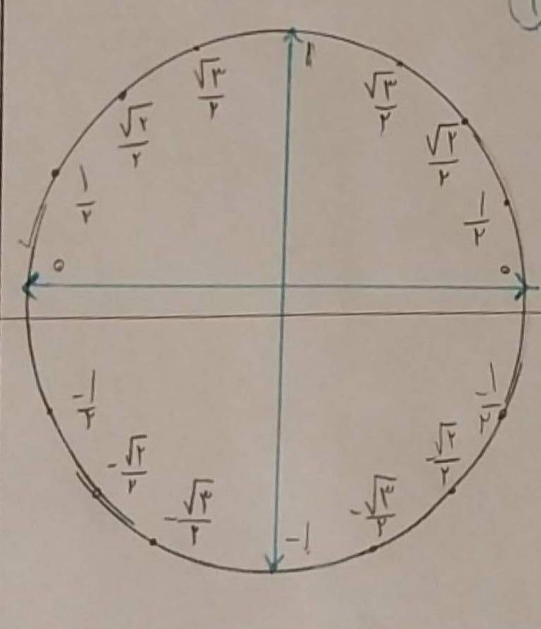
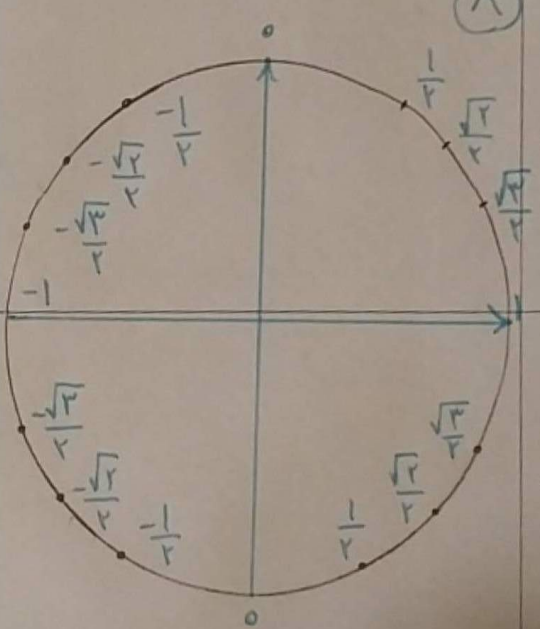


$y^3 - x = 2x^2 \rightarrow y = \sqrt[3]{2x^2 + x}$ $y = \sqrt[3]{2+1} = y = \sqrt[3]{3}$ <u>تابع</u>	$ y + x^2 = x + 3 \rightarrow x = 1 \Rightarrow$ $ y + 1 = 4 \Rightarrow y = 3 \Rightarrow y = \pm 3$ <u>تابع نیست</u>	۱
$\sqrt{x-4} + y-2 = 0 \Rightarrow \sqrt{x-4} = 0 \Rightarrow x = 4$ $ y-2 = 0 \Rightarrow y = 2$ <u>تابع</u>	$x = \cos y \rightarrow x = 1 \Rightarrow 1 = \cos y$ $y = 0, 2\pi$ <u>تابع نیست</u>	۱
$y = x \Rightarrow y = 1$ 	$y = ax + b \Rightarrow 2 = 2(1) + b \Rightarrow b = 0$ $y = 2x$ 	۲
$y = ax + b \rightarrow y = x \Rightarrow a = 1, b = 0$ $a + 2b = 1$ $1 + 0 = 1$	$y = x^2 + ax + b \Rightarrow -\frac{b}{2a} = -\frac{a}{2} \Rightarrow$ $-\frac{a}{2} = 1 \Rightarrow a = -2 \Rightarrow$ $1 = 4 + (-2)(1) + b \Rightarrow 1 = -2 + b \Rightarrow b = 3$ $a + 2b = 4$	۳
$y = 2x + 1$ 	$y = -3x + 1$ 	۴
$y = x^4$ 	$y = x^5$ 	۴
$y = x-2 + 3$ 	$y = - x+3 + 1$ 	۵

الف) $y = \frac{x+2}{x^2-4x} \rightarrow x^2-4x \neq 0 \Rightarrow$ $x(x-4) \neq 0 \Rightarrow x \neq 0, 4 \Rightarrow D = \mathbb{R} - \{0, 4\}$	ب) $y = \frac{x+2}{x^2-\sqrt{x+1}} \rightarrow \frac{\sqrt{x+1}-\sqrt{x+1}}{x^2-\sqrt{x+1}} \Rightarrow$ $\Delta \rightarrow \text{مقلوب} = \Rightarrow D = \mathbb{R}$	6
ج) $\frac{x+2}{x^2+x+2} \Rightarrow x^2+x+2 \neq 0 \Rightarrow$ $\frac{-1 \pm \sqrt{1-4}}{2} \Rightarrow \Delta \text{ مقلوب} \Rightarrow D = \mathbb{R}$	د) $\frac{x+2}{x^2-2x^2} \Rightarrow x^2-2x^2 \neq 0 \Rightarrow$ $x^2(x^2-2) \neq 0 \Rightarrow x \neq 0, \pm\sqrt{2} \Rightarrow$ $D = \mathbb{R} - \{0, \pm\sqrt{2}\}$	7
الف) $y = \sqrt{4-x} + \sqrt{x-2} \Rightarrow 4-x \geq 0 \Rightarrow 4 \geq x$ $x-2 \geq 0 \Rightarrow x \geq 2 \Rightarrow$ $2 \leq x \leq 4$	ب) $\frac{x+1}{x^2+1} \Rightarrow x^2+1 \neq 0 \Rightarrow x^2 \neq -1$ $\cdot \{x^2 \text{ مقلوب}\}$ $D = \mathbb{R}$	8
ج) $\frac{\sqrt{x-2}}{x-2} \Rightarrow x-2 \geq 0 \Rightarrow x \geq 2$ $x-2 \neq 0 \Rightarrow x \neq 2 \Rightarrow D = [2, \infty) \cup (2, \infty)$	د) $y = \frac{2x+2}{ x +x^2} \Rightarrow x +x^2 \neq 0 \Rightarrow x \neq 0$ $+ \Rightarrow \text{مقلوب}$ $D = \mathbb{R} - \{0\}$	9
٩ 	٨ 	9
الف) $\cos \frac{2\pi}{3} = -\frac{1}{2} \Rightarrow -(-\frac{1}{2}) = \frac{1}{2} \Rightarrow$ $\sin \theta = \frac{1}{2} \Rightarrow \frac{\pi}{6}, \frac{5\pi}{6}$	ب) $\cos \frac{11\pi}{4} = \frac{\sqrt{2}}{2} \Rightarrow -\frac{\sqrt{2}}{2}$ $\sin \theta = -\frac{\sqrt{2}}{2} \Rightarrow \frac{3\pi}{4}, \frac{5\pi}{4}$	10