

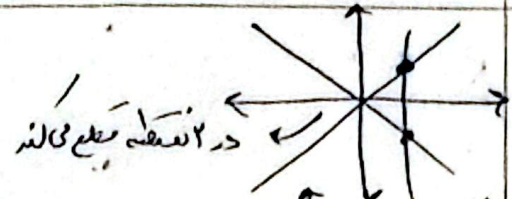
$$f = \{(1, 4a), (1, a^2, 3), (2, 3a)\} \rightarrow a^2 + 3 = 4a \Rightarrow a^2 - 4a + 3 = 0 \Rightarrow (a-1)(a-3) = 0 \Rightarrow \begin{cases} a=1 \\ a=3 \end{cases}$$

در این دو مورد اول مشترک

$$\{(1, 4), (2, 3)\} / \{(1, 12), (2, 9)\}$$

$$(a=1 \quad a=3)$$

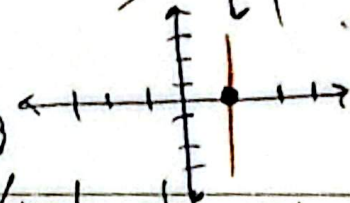
الف) $|a| \leq |a| \Rightarrow \frac{y \leq a}{y \geq -a}$
تابع است



ب) $|y| + \sqrt{x-1} = 0$
دوستان مثبت حاصل می‌دهد هر دو صفر

$|y| = 0 \Rightarrow y = 0$
 $\sqrt{x-1} = 0 \Rightarrow x = 1$

$(1, 0)$ تابع است



الف) $|y-1| = \sqrt{x-2} \Rightarrow x = 2 \Rightarrow |y-1| = 1 \Rightarrow y-1 = \pm 1 \Rightarrow y = 0 \text{ or } y = 2$

ب) $y^2 - y = \frac{x^2}{y} \Rightarrow y^3 - y^2 = x^2 \Rightarrow y(y-1) = x^2$
 $y=0$ and $y=1$ are solutions.

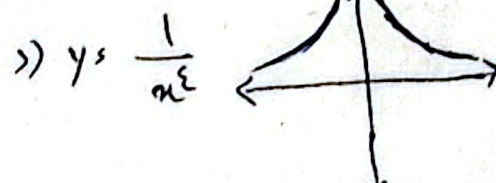
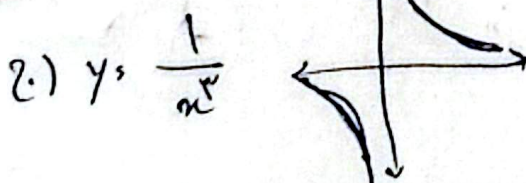
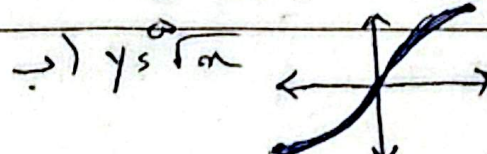
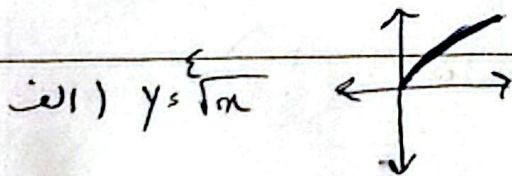
ج) $\sin^2 \frac{y}{x} + \cos^2 \frac{y}{x} = 1 \Rightarrow \cos^2 \frac{y}{x} = 1 \Rightarrow \frac{y}{x} = 0 \text{ or } \pm \pi$
 $y=0$ and $y=\pm \pi x$ are solutions.

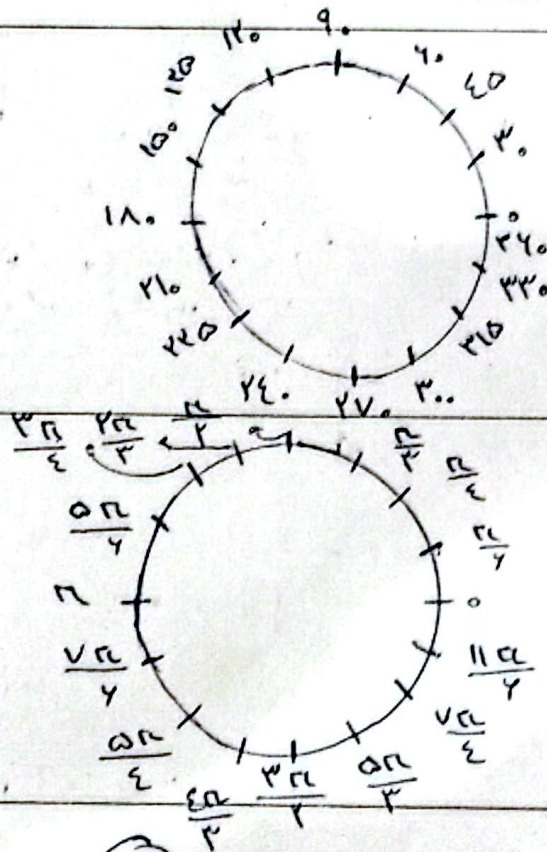
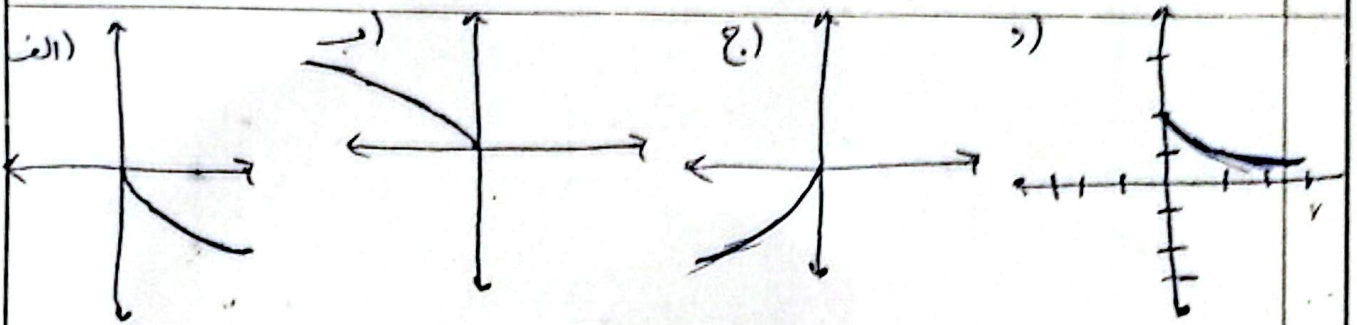
د) $2xy = x \Rightarrow x=0 \text{ or } y=1/2$
تابع نیست هر دو خط

الف) $x^2 + |y-1| = 4x \Rightarrow |y-1| = 4x - x^2 \Rightarrow y-1 = \pm(4x - x^2) \Rightarrow y = 1 \pm (4x - x^2)$
تابع نیست به ازای x دو مقدار y دارد

ب) $y^2 + 3x = 0 \Rightarrow y^2 = -3x \Rightarrow y = \pm \sqrt{-3x}$

به ازای x مقدار y پس تابع است.





ب) $\sin 15^\circ = \frac{1}{2}$

5) $\sin \frac{11\pi}{4} = \gamma$ 