

سنتیاً معنی

①

$$f = \{(1, a), (1, a^2 + 3), (2, 3a)\}$$

$$4a = a^2 + 3$$

$$4a - a^2 = 3$$

$$a(4 - a) = 3$$

$$a = 1$$

$$a = 1$$

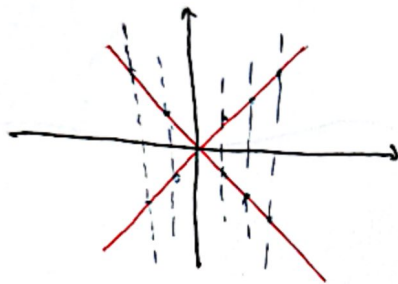
$$a \in \{1, 3\}$$

سنتیاً معنی

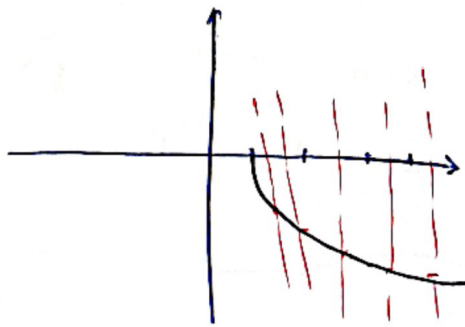
الف)  $|y| = |x| \rightarrow y = x \text{ یا } y = -x$

تقاطع

②



ب)  $|y| + \sqrt{x-1} = 0 \rightarrow |y| = -\sqrt{x-1}$



تقاطع

الف)  $|y-1| = \sqrt{x-2} \rightarrow x=4 \Rightarrow y = -1, 3$  = تقاطع

$$ب) y^5 - y = \frac{x^2}{y} \rightarrow y(y^4 - 1) = \frac{x^2}{y} \rightarrow x=0 \Rightarrow y=0, 1, -1$$

\*تابع نیست

$$ج) \sin^2 x + \cos^4 \frac{y}{y} = 1 \rightarrow x=90^\circ \rightarrow 0 + \cos^4 \frac{y}{y} = 1$$

$$\Rightarrow y=180^\circ, 540^\circ$$

$$د) 2xy = x \rightarrow x=0 \Rightarrow 2x \cdot y = 0 \Rightarrow y = \text{هر عددی} = y$$

\*تابع نیست

$$الف) x^2 + |y-1| = 4x$$

(4)

\*تابع نیست

$$|y-1| = 4x - x^2$$

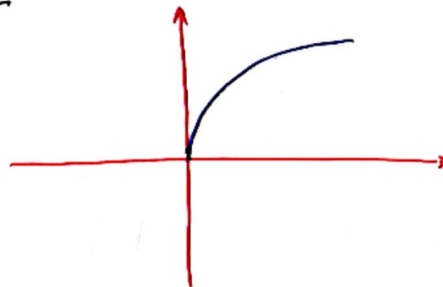
$$|y-1| = x(4-x) \Rightarrow x=1 \Rightarrow |y-1| = 3 \Rightarrow y=4, -2$$

$$ب) y^5 + 3x = 0 \Rightarrow y^5 = -3x \Rightarrow x=0 \Rightarrow y=0 \Rightarrow \text{تابع}$$

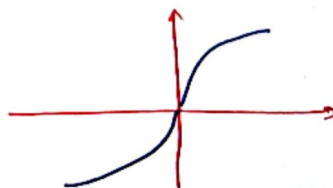
$$x=1 \Rightarrow y = \sqrt[5]{-3}$$

$$الف) y = \sqrt[4]{x}$$

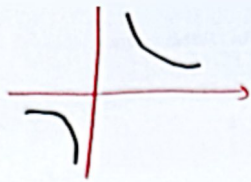
(5)



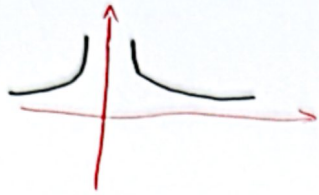
$$ب) y = \sqrt[5]{x}$$



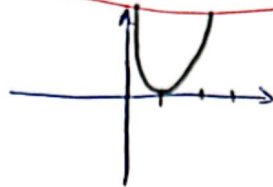
$$ج) y = \frac{1}{x^2} =$$



$$د) y = \frac{1}{x^2}$$



$$الف) y = (x-1)^2$$

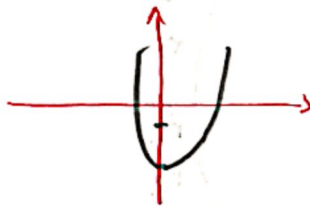


4

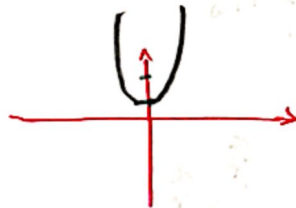
$$ب) y = (x+2)^2$$



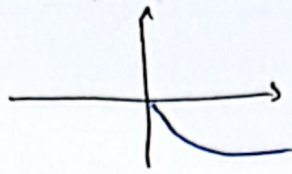
$$ج) y = x^2 - 2$$



$$د) y = x^2 + 1$$



$$x - \sqrt{x} - 1$$

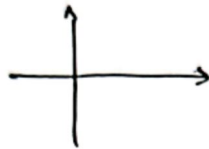


7

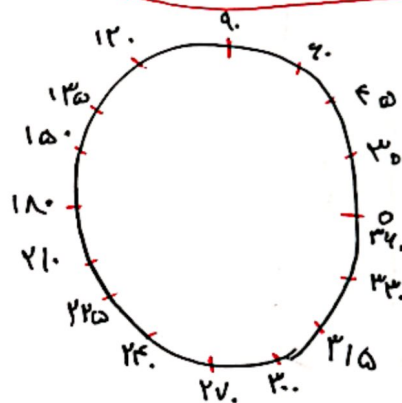
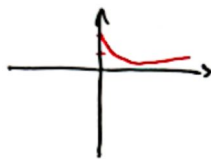
$$x - \sqrt{x}$$



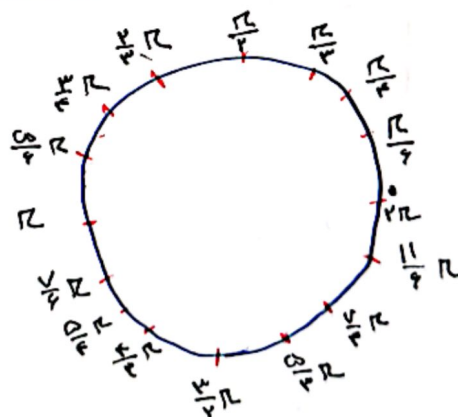
$$x - \sqrt{x} - 1$$



$$x - \sqrt{x} + 2$$



8



9

$$\text{الف) } \cos 120^\circ = -\frac{1}{2}$$

$$\text{ز.) } \cos \frac{5}{3}\pi = \frac{1}{2}$$

$\swarrow$   
120°

$$\text{ب) } \sin 150^\circ = \frac{1}{2}$$

$$\text{د) } \sin \frac{11}{6}\pi = -\frac{1}{2}$$

$\downarrow$   
330°

١٩