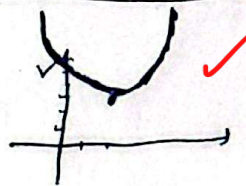
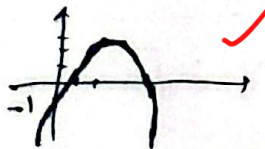


$$y = x^2 - 4x + 7 \quad \frac{-b}{2a} = x_s = 2 \quad y_s = 3$$



-1 (2)

$$y = -x^2 + 4x - 1 \quad \frac{-b}{2a} = x_s = 2 \quad y_s = 3$$



$$\Delta > 0 \rightarrow b^2 - 4ac > 0 \rightarrow m^2 + 2m + 1 - 4 > 0$$

$$m^2 + 2m - 3 > 0 \quad \frac{2 \pm 4}{2} = \begin{cases} 1 \\ -3 \end{cases} \quad \frac{-2 \pm \sqrt{4}}{+1-1+} \quad (-\infty, -3) \cup (1, +\infty) \checkmark$$

-2 (2)

$$\Delta = 0 \rightarrow b^2 - 4ac = 0 \rightarrow$$

$$m = 1, -3 \checkmark$$

$$\Delta < 0 \rightarrow b^2 - 4ac < 0 \quad \frac{-2 \pm \sqrt{4}}{+1-1+}$$

$$m = (-3, 1) \checkmark$$

$$\Delta \geq 0 \rightarrow b^2 - 4ac \geq 0 \quad \frac{-2 \pm \sqrt{4}}{+1-1+} \quad (-\infty, -3] \cup [1, +\infty) \checkmark$$

$$\Delta > 0 \quad (m^2 + 2m + 1 - 4 > 0)$$

$$\frac{-1 \pm \sqrt{1}}{2}$$

$$(m^2 + 2m + 1) > 4 \rightarrow (m+1)^2 > 4$$

$$\frac{1 \pm 2}{2}$$

$$\frac{1 \pm 2}{2}$$

$$\frac{m+1}{m-1} < 0 \quad \frac{-1 \pm 1}{+1-1+} \quad (-2, 1)$$

$$\frac{1}{m-1} > 0 \quad \frac{1}{-1+} \quad (1, +\infty)$$

$$\Delta < 0 \quad \frac{1 \pm 2}{2}$$

-3 (2)

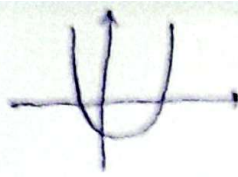
$$\rightarrow \text{مجموعه} \rightarrow (-2, 1)$$

$$\frac{c}{a} < 0 \quad (-\infty, 1)$$

$$\Delta > 0 \rightarrow + \frac{1 \pm 2}{2}$$

$$\Delta \rightarrow (-2, 1) \checkmark$$

$$\rightarrow \Delta = \emptyset \checkmark$$



 $\frac{c}{a} < 0 \rightarrow \frac{10}{m-2} \rightarrow \frac{2}{1+} (-\infty, 1)$
(2) - 2

$\frac{-b}{a} \rightarrow \text{نقطهٔ بحرانی} \rightarrow \Delta = (-\infty, 1) \checkmark$

ت + ...

$\frac{-b}{2a} = -1 \rightarrow \frac{m+1}{m-2} = -1 \rightarrow m+1 = -m+2 \rightarrow 2m = 1 \rightarrow m = \frac{1}{2} \checkmark$

b^r-fac

$\Delta \geq 0 \checkmark \quad f(\sin^2 \alpha - 1) \geq 0 \rightarrow f(\sin^2 \alpha - 1) \geq 0 \rightarrow \sin^2 \alpha \geq 1$
(2) 25

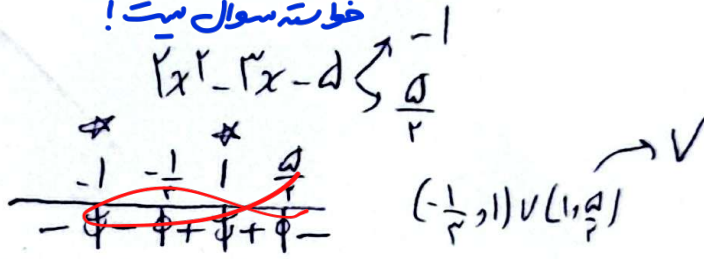
$\sin \alpha \in [0, 1] \quad \sin^2 \alpha = 1 \rightarrow \frac{m^2}{3} - 2m + \frac{4}{3} = 0 \rightarrow (m-3)^2 = 0 \rightarrow m = \frac{3}{2}$

$\sin \alpha = -1 \rightarrow$ مقدار بیشینه

خطه سوال نیست!

$(2x^2 - 2x - 1) \rightarrow \frac{1}{2}$

$1 - 2x^2 \rightarrow -1$



0 - 4

$f\left(\frac{m+1}{m}\right) = \Delta - \frac{2}{m} + V$

(2) - V

$\frac{m+1}{m} = \frac{-10m + Vm}{m} \rightarrow m^2 + 4m = Vm^2 - 10m \rightarrow m^2 - 14m = 0 \rightarrow m(m-14) = 0$

$m(m-14) = 0 \rightarrow m = 14$

$4x^2 - 4x - 2 = 0$

$5^2 - 19 \rightarrow \frac{25}{19} + \frac{14}{19} = \frac{39}{19} = \frac{13}{5} \checkmark$

$y = \frac{(x-1)(x+1)(x+1)(x-5)}{(1-x)(1+x)} = -4x^2 + 12x + 5$

سوال 4

$\text{ext} \begin{cases} \frac{-b}{2a} = \frac{13}{12} \rightarrow \text{در دامنه تابع وجود ندارد} \\ y = \frac{219}{24} \end{cases}$

$$b^2 = ab - 2$$

$$a + b = 4$$

$$a = 4 - b$$

$$ab^2 = a(ab - 2) = 2ab - 10$$

$$5ab - 190 = 19(ab - 10)$$

$$\frac{5ab - 190}{ab - 10} = 19 \checkmark$$

(2) -1

$$\frac{\beta^2}{A} + \frac{5}{A} \frac{\alpha}{\beta^2}$$

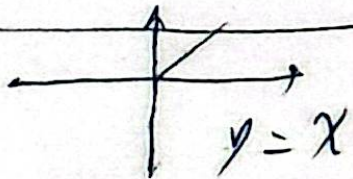
$$\xrightarrow{GK} y=x$$

$$ax^2 + bx + c \xrightarrow{2} fa + 2b + c = +1^2 \rightarrow 11a + 4b = 10 \quad -9$$

$$ax^2 + bx + c \xrightarrow{-3} 9a - 3b + c = c \rightarrow 11a - 4b = 0 \quad (2)$$

$$a=1 \quad b=3$$

$$\frac{-b}{2a} = \frac{-3}{2} = -1.5 \quad \checkmark$$



$$m^2 + 2m + 1 - 11m - 41, m^2 - 4m - 41 \quad 2y \quad m = -3 \quad \checkmark$$

$$m^2 - 11m - 41 \quad 4 \pm \sqrt{42} \rightarrow \sqrt{m^2 - 11m - 41} \quad \text{انت, انت}$$

نفسه دوم

$$(1.5a) - 10$$