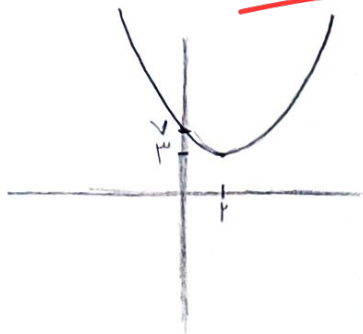
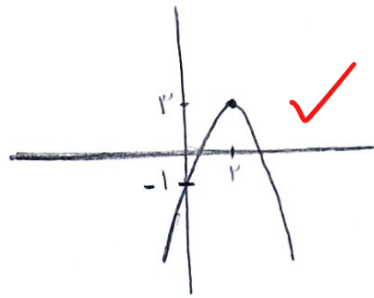


(الف)



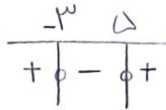
18, 175

ب)



(2)

(الف)  $m^2 + 2m + 1 - 4m - 1 > 0$   
 $m^2 - 2m - 1 > 0$   
 $(m-3)(m+1) > 0$



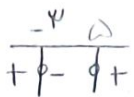
$m \in (-\infty, -1) \cup (3, +\infty)$  ✓

ب)  $m^2 - 2m - 1 = 0$

$(m-3)(m+1) = 0$   
 $m=3 \quad m=-1$  ✓

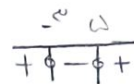
(2) -2

ج)  $m^2 - 2m - 1 < 0$



$m \in (-1, 3)$  ✓

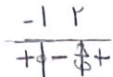
د)  $m^2 - 2m - 1 \geq 0$



$m \in (-\infty, -1] \cup [3, +\infty)$  ✓

(الف)

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



$\frac{10}{m-2} > 0 \quad m > 2$

$4(m^2 + 1 + 2m) - 4 \times 10(m-2) > 0$

$m^2 - 8m + 21 > 0$

$\Delta < 0 \Rightarrow$  همواره مثبت

$m \in \emptyset$  ✓

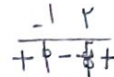
(2) -3

ب)

$\frac{10}{m-2} < 0 \quad m < 2$

$\frac{c}{a} < 0 \Rightarrow \Delta > 0$

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



$m \in (-1/2, 2)$  ✓

(الف)

$\frac{10}{m-2} < 0 \quad m < 2$

$\frac{c}{a} < 0 \Rightarrow \Delta > 0$

$m \in (-\infty, 2)$  ✓

(2) -4

ب)

$\frac{2(m+1)}{2(m-2)} = -2 \quad m+1 = -2m+4$

$3m = 3$   
 $m = 1$  ✓

$4 \sin^2 x - 4 \geq 0$

$\sin^2 x \geq 1$

$\sin x \geq 1 \quad \sin x \leq -1$

$\sin x = 1 \quad \sin x = -1$

$\Delta = 0 \Rightarrow x = \frac{2 \sin x}{\frac{4}{3}} \quad x > 0 \Rightarrow \sin x = 1$

$x = \frac{2}{\frac{4}{3}} = \frac{3}{2}$  ✓

(2) -5

$(x-1)(x+\frac{1}{3})(x+1)(x-\frac{5}{3})$

$(1-x)(1+x)$

$-4x^2 + 13x + 5 = 0$

$\frac{-149}{34} - \frac{10}{3} = \frac{-289}{-4 \times 34} = \frac{289}{136}$

$\frac{-b}{2a} = \frac{13}{8}$

$y = \frac{289}{24}$

(1) -4

خبرنامه  
 روزنامه نوری

$$\frac{1^m m + 7}{m} = \frac{-10}{m} + 7$$

$$5^r - 2P = \left(\frac{1^m}{r}\right)^r - 2x - \frac{1}{r} = \frac{2}{r} + 1 = \frac{1^m}{r} \quad \checkmark$$

(2) -v

$$1^m m + 7 = -10 + 7m$$

$$1^m = 17 \quad \checkmark$$

$$m = 4$$

$$\alpha\beta = 1$$

$$1\alpha = \frac{1}{\beta}$$

$$\frac{\frac{1}{\beta} + \beta^{\Delta}}{\Delta\beta^r} = \frac{\beta^4 + 1}{\Delta\beta^{10}} = \frac{(\beta^r + 1)(\beta^4 - 2\beta^r + 1)}{\Delta\beta^{10}} = \frac{\cancel{\Delta\beta}(\beta^r + 1)^r - 4\beta^r}{\beta^r \cancel{\Delta\beta^{10}}} = \frac{1\Delta\beta^r - 4\beta^r}{\beta^r} = 19 \quad \checkmark$$

(2) -\Delta

$$x = 1 \Rightarrow y_r = 1 \times 1 + 10 = 11$$

$$1a + 1b + 1 = 11$$

$$1a + 1b = 10 \quad 4a + 1b = 1\Delta$$

$$x = 1 \Rightarrow y_r = 1x - 1 + 10 = 10$$

$$9a - 1b + 1 = 1$$

$$9a - 1b = 0 \quad 1\Delta a = 1\Delta$$

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

(2) -9

$$y_1 = x^r + 1^m x + 1 \quad \text{موردفردان} = \frac{-3}{r} \quad \checkmark$$

$$1x^r + (m+1)x + m + 7 = x$$

$$1x^r + mx + m + 7 = 0$$

$$m^r - 1m - 1\Delta = 0$$

$$(m-1^r)(m+1) = 0$$

$$x_{m=1^r} \quad m = -1 \quad \checkmark$$

(2, 1, 1) -10