

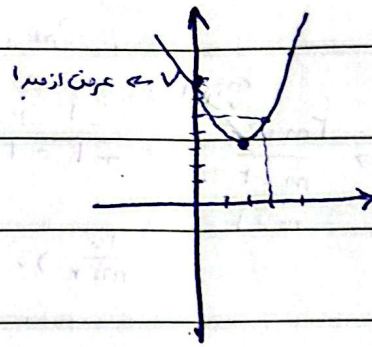
$$y = m^2 - 2m + 1$$

$$\Delta < 0 \Rightarrow 14 - 21 < 0$$

$$-\frac{b}{2a} \rightarrow r$$

$$-\frac{\Delta}{2a} \rightarrow r$$

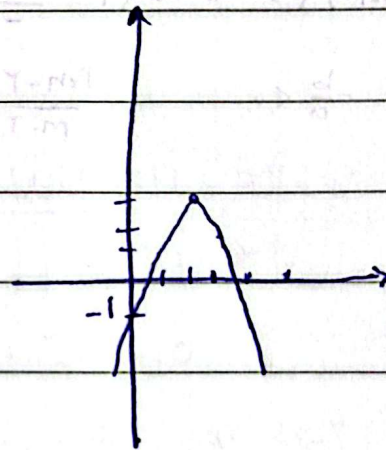
$$\begin{array}{c|c} 1 & 1 \\ \hline 2 & 2 \\ \hline 3 & 3 \\ \hline 4 & 4 \end{array}$$



$$b) -m^2 + 2m + 1$$

$$\max \begin{array}{c|c} r & \\ \hline r & \end{array}$$

$$\begin{array}{c|c} 1 & 1 \\ \hline 2 & 2 \\ \hline 3 & 3 \\ \hline 4 & 4 \end{array}$$



$$rm^2 + (m+1)m + \frac{1}{r}m + r = 0$$

$$\Delta > 0 \quad (m+1)^2 - 4\left(\frac{1}{r}m + r\right) \Rightarrow m^2 - 2m - 10 > 0 \quad \leftarrow \text{ان کا راس بی بی}$$

$$m \leq 0, -r$$

$$m \in [R, -3, 0]$$

$$\Delta \leq 0, \quad m^2 - 2m - 10 \leq 0 \quad m \in -3, 0 \quad \leftarrow \text{ب) راس بی بی}$$

$$\Delta < 0 \quad m^2 - 2m - 10 < 0$$

$$m \in (-3, 0)$$

$$\leftarrow \text{ج) ناقص راس بی بی}$$

$$\Delta \geq 0$$

$$m \in [R, (-3, 0)]$$

$$\leftarrow \text{د) ناقص راس بی بی}$$

$$m^2 - 2m - 10 \geq 0$$

$$\frac{-r}{+0} = \frac{0}{+0}$$

$$y = (m-2) m^2 - 2(m+1)m + 1. \quad (3)$$

الف) دور دوم منفی باشد. $\Delta > 0$ $S < 0$ $P > 0$ $m=1$ $\frac{2m+2}{m-2}$ $\frac{-1}{+1} \frac{2}{-1+}$ $(-1, 2)$

جواب $\emptyset$ $\frac{1}{m-2} > 0$ $\frac{2}{-1+}$ $\frac{-1}{+1} \frac{2}{-1+}$

ب) معادله درجه دوم تحت المثلث با ضلع 2 و ارتفاع 1 و وتر 2 است. $\Delta > 0$ $S < 0$ $P > 0$ $m=1$ $\frac{2m+2}{m-2}$ $\frac{-1}{+1} \frac{2}{-1+}$ $(-1, 2)$

$$1 - (m-2) < 0 \rightarrow m < 2$$

$$-\frac{b}{a} < 0$$

$$\frac{2m+2}{m-2} < 0$$

$$\frac{-1}{+1} \frac{2}{-1+}$$

$$\frac{-1}{+1} \frac{2}{-1+}$$

جواب $(-1, 2)$ C, D $\Delta > 0$ $S < 0$ $P > 0$ $m=1$ $\frac{2m+2}{m-2}$ $\frac{-1}{+1} \frac{2}{-1+}$ $(-1, 2)$

$$y = (m-2) m^2 - 2(m+1)m + 1. \quad (4)$$

$$a < 0 \rightarrow m < 2$$

الف) $(-\infty, 2)$ $\Delta > 0$ $S < 0$ $P > 0$ $m=1$ $\frac{2m+2}{m-2}$ $\frac{-1}{+1} \frac{2}{-1+}$ $(-1, 2)$

$$\Delta > 0 \rightarrow \text{ریشه های مختلف و حقیقی}$$

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

$$4m^2 - 8m + 21 > 0 \rightarrow$$

$$\Delta < 0$$

$$-2 < \frac{2m+2}{2m-2}$$

$$-4m+8 = 2m+2$$

$$-4m = -4 \quad [m=1]$$

$$\frac{r_m r}{r} - r (\sin \alpha) m + \frac{r}{r} = 0$$

$$\sin \alpha \gg 1$$

$$\hookrightarrow \sin \alpha \approx \pm 1$$

$$\boxed{\sin \alpha = 1}$$

شرط سبب 1 و 2

⑤ 1

$$\Delta \gg 0 \quad b^2 \epsilon a c \gg 0$$

2

$$\frac{r}{r} m^2 - r m + \frac{r}{r} \epsilon m^2 - 1 r m + 1 = 0 \rightarrow (r m - r)^2 = 0 \quad r m - r = 0 \quad \left(m = \frac{r}{r} \right)$$

3

4

④ 5

$$y = \frac{(r_m r, r_m - 1)(r_m r, r_m - 0)}{1 - m^2}$$

6

7

$$\frac{r_m r, r_m - 1}{-r_m r + r_m} \bigg|_{m=1}^{m-1}$$

$$(m-1)(r_{m+1})(m+1)(r_m - 0)$$

$$(1+r)(1+r)$$

8

9

$$\frac{r_m r, r_m - 0}{m+1} \rightarrow r_m - 0$$

$$r_m r, 1 r_m - 0$$

10

$$\max \epsilon = \frac{\Delta}{\epsilon a} = \frac{(149 - \epsilon(-r))}{r \epsilon} = \frac{r \wedge 9}{r \delta}$$

11

12

$$m m^2 - (m+r) m - r = 0$$

⑥ 13

$$\psi_S = \partial \rho + v$$

$$r \left(\frac{m+r}{m} \right) = \partial \left(-\frac{r}{m} \right) + v$$

$$\alpha^r + \beta^r$$

14

$$\frac{r_{m+4}}{m} = 1 + \frac{v m}{m} \rightarrow r_{m+4} = -1 + v m$$

$$(a+\beta)^r - r a \beta$$

$$s^r - r \rho$$

15

16

$$\epsilon m^2 - 4 m - r = 0 \rightarrow S = \frac{r}{r}, \quad P = -\frac{1}{r} \quad \frac{2}{\epsilon} + 1 \rightarrow \frac{15}{\epsilon}$$

17

18

19

20

(1)

$$\frac{\partial \alpha + \beta^r}{\partial \beta^r} = ?$$

$$m^r - \alpha m + r = 0$$

$$s < 0, p < r$$

$$\alpha \beta < r$$

$$\beta < \frac{r}{\alpha}$$

$$\frac{\partial \beta^r}{\partial \alpha^r} = \frac{r_0}{\alpha^r}$$

$$\frac{\partial \alpha}{\partial \beta^r} + \frac{\beta^r}{\alpha} \rightarrow \frac{\partial \alpha}{\frac{r_0}{\alpha^r}} + \frac{\beta^r}{\alpha} \Rightarrow \frac{\alpha^r}{\alpha} + \frac{\beta^r}{\alpha}$$

G

$$\frac{1}{\alpha} (\alpha^r + \beta^r) = \frac{1}{\alpha} (s^r - r p s)$$

$$\hookrightarrow \frac{1}{\alpha} (120 - r_0) \quad (19)$$

(2)

$$y_{r < r m + 1} \xrightarrow{m \leq r} y_{r \leq 1}$$

$$y_1 = a m^r + b m + c \xrightarrow{m \leq r} y_{r \leq 1}$$

$$\partial a + r b \leq 1$$

$$m^r + r m + c \Rightarrow m_s = -\frac{b}{r a} \Rightarrow -\frac{r}{r}$$

$$r a - r b \leq 0 \Rightarrow r a \leq b$$

$$\partial a + r a \leq 1$$

$$a \leq 1 \quad b \leq r$$

(12)

$$r m^r + (m+1) m + m + 4 \leq 4$$

$$r m^r + m m + m + 4 \leq 0$$

$$\Delta = m^r - \partial(r)(m+4) \Rightarrow m^r - \lambda m - \partial \lambda \leq 0$$

$$(m - \partial)(m + 4) \leq 0 \quad m \leq \partial$$

$$(m - \partial)(m + 4) \leq 0 \quad m \leq \partial$$