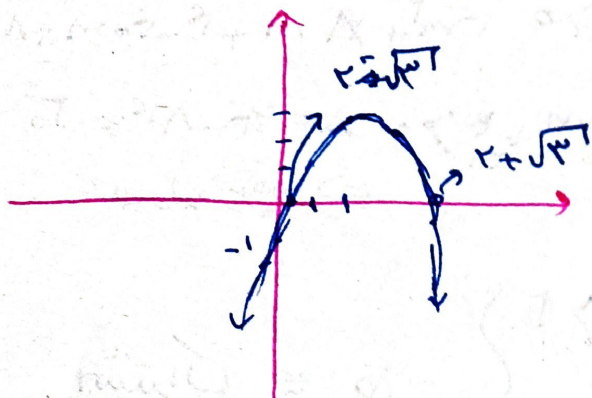
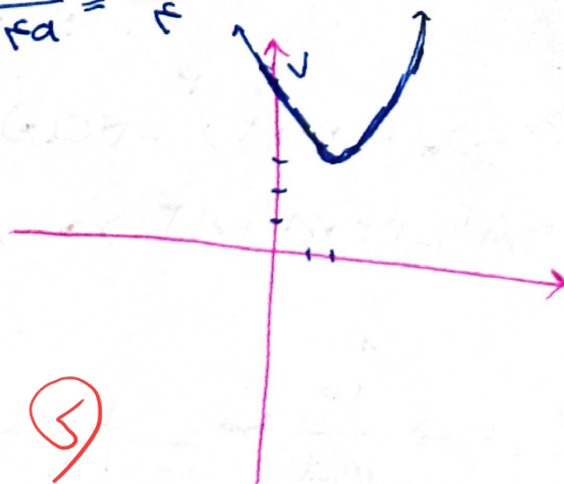


ext $\left| \begin{array}{l} \frac{-b}{2a} = \frac{-r}{-2} = r \\ \frac{-\Delta}{4a} = \frac{-1r}{-4} = r \end{array} \right.$ (ب) $(18, \omega)$



ما عفا $\left| \begin{array}{l} \frac{-b}{2a} \rightarrow \frac{r}{2} = r \\ \frac{-\Delta}{4a} = \frac{1r}{4} = r \end{array} \right.$



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

الف) $\Delta > 0$ $\rightarrow$ $\Delta > 0$ $\rightarrow$ $\Delta > 0$

① $\Delta > 0 \rightarrow (m+1)^2 - 4(r)(\frac{1}{r}m + r) > 0 \Rightarrow m^2 + 2m + 1 - 4m - 4r > 0$

$m^2 - 2m - 1 > 0 \rightarrow (m-2)(m+1) > 0$

$m < -1 \cup m > 2$

~~$\Delta = 0 \rightarrow \frac{1}{r}m + r = 0 \Rightarrow \frac{1}{r}m + r = 0 \Rightarrow m = -r^2$~~

~~$\Delta < 0 \rightarrow m < -r^2$~~

ب) $\Delta = 0 \rightarrow m^2 - 2m - 1 = 0 \rightarrow (m+2)(m-2) = 0 \rightarrow m = 2$

ج) $\Delta < 0 \rightarrow m^2 - 2m - 1 < 0 \rightarrow (m+2)(m-2) < 0 \rightarrow -2 < m < 2$

د) $\Delta > 0 \rightarrow (m+2)(m-2) > 0 \rightarrow m < -2 \cup m > 2$

$$y = (m-2)x^2 - \frac{2(m+1)}{-(2m+2)}x + 1$$

(۳)

الف) $\Delta > 0$ و $P > 0$ و $S < 0$ ، ریشه منفی

① $\Delta > 0 \rightarrow (2m+2)^2 - 4(1)(m-2) > 0 \rightarrow 4m^2 + 8m + 4 - 4m + 8 > 0$
 $4m^2 - 4m + 12 > 0 \rightarrow m^2 - m + 3 > 0$ $\Delta = 1 - 12 = -11 < 0$
 همواره برقرار $\Rightarrow$

(۴)

② $P > 0 \rightarrow \frac{1}{m-2} > -\frac{2}{1+} \Rightarrow m > 2$

اشتراک ϕ =
 به ازای هیچ مقدار m

③ $S < 0 \rightarrow \frac{2(m+1)}{(m-2)} < -\frac{1}{1-1+} \Rightarrow -1 < m < 2$

ب) $\Delta > 0$ و $P < 0$ و انداز ریشه منفی بزرگتر $S < 0$

① $\Delta > 0 \rightarrow$ با توجه به روابط بارها بارها برقرار

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

③ $P < 0 \rightarrow \frac{1}{m-2} < 0 \Rightarrow m-2 < 0 \Rightarrow m < 2$

(۵)

$$y = (m-2)x^2 - 2(m+1)x + 1$$

(۵)

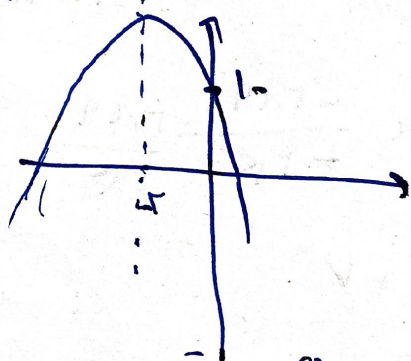
الف) چون عرفان از مبدأ max می‌خواهد بزرگترین دار بود فقط از ۳ ناحیه می‌گذشت.

$\Rightarrow m-2 < 0 \rightarrow m < 2$

$\Delta > 0 \rightarrow (2m+2)^2 - 4(1)(m-2) = 4m^2 + 8m + 4 - 4m + 8 > 0$

$4m^2 - 4m + 12 > 0 \rightarrow m^2 - m + 3 > 0$ $\Delta = 1 - 12 = -11 < 0$
 همواره برقرار $\Rightarrow$

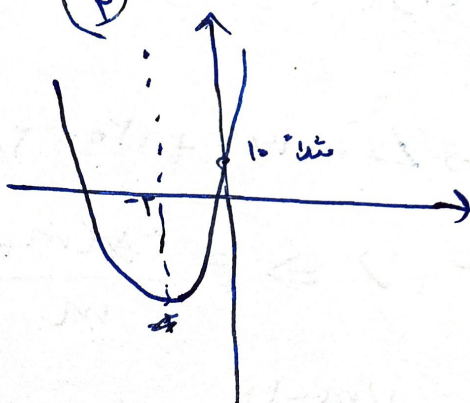
①



به دلیل روابط قسمت الف
 $\Delta > 0$ (محدوده بهر دو)

$$x^2 - 2x - b < 0 \rightarrow m - 2 < 0 \Rightarrow \boxed{m < 2}$$

②



محدوده بهر دو - $\Delta > 0$

$$x^2 - 2x - b > 0 \rightarrow m - 2 > 0 \rightarrow m > 2$$

$$\frac{-b}{2a} = -2 \rightarrow \frac{2m+2}{2m-2} = -2 \Rightarrow 2m+2 = -4m+4$$

$$4m = 2 \Rightarrow m = \frac{1}{2}$$

$$\Delta > 0 \rightarrow 4 \sin^2 \alpha - 4 \left(\frac{2}{1} \times \frac{1}{1} \right) > 0 \Rightarrow 4 \sin^2 \alpha > 4$$

$$\sin^2 \alpha > 1 \rightarrow \sin^2 \alpha = 1 \rightarrow \sin \alpha = \pm 1$$

$$\left(\frac{2}{1} x^2 - (\pm 2) x + \frac{1}{1} \right) \times 2 \rightarrow 4x^2 - (\pm 4) x + 2 = 0$$

$$\Delta = 0$$

$$\Rightarrow x = \frac{-b}{2a} \Rightarrow \frac{+12}{1} = \frac{12}{1}$$

③

④

⑤

$$y = \frac{(r_n^r - r_n - 1)(r_n^r - r_n - \omega)}{(1-n)(1+n)}$$

(9)

$$\Rightarrow y = \frac{(\cancel{r_n - 1})(\cancel{r_n + 1})(\cancel{r_n + 1})(r_n - \omega)}{\cancel{r_n - 1}(\cancel{1-n})(\cancel{1+n})} \Rightarrow$$

(5)

$$y = -(r_n + 1)(r_n - \omega) = -(r_n^r - r_n - \omega) \Rightarrow -r_n^r + r_n + \omega$$

$$\text{max} = \frac{-\Delta}{r\alpha} \rightarrow \Delta = 149 + 150 - 719 \rightarrow \text{max} \frac{-719}{-77} = \frac{719}{77}$$

$$\mu S = \omega P + V \Rightarrow \frac{r_x(m+r)}{m} = \frac{-10}{m} + V$$

(V)

$$\frac{r_m + 9}{m} = \frac{V_m - 10}{m} \quad r_m + 9 = V_m - 10 \rightarrow \frac{r_m}{m} = 19$$

(5)

$$\Rightarrow r_n^r - r_n - r = 0 \quad q^r + \beta^r = S^r - rP = \left(\frac{r}{r}\right)^r - r\left(\frac{1}{r}\right)$$

$$= \frac{9}{r} + 1 = \frac{10}{r}$$

$$\frac{\beta^0 + r\alpha}{\omega\beta^r} = M$$

$$\frac{q^0 + r\beta}{\omega q^r} = M$$

(1)

$$\omega q^r \beta^0 + r_0 q^r \beta^r + \omega q^0 \beta^r + r_0 \beta^r = rM$$

$$\omega q^r \beta^r$$

$$\frac{10(q^r + \beta^r) + \omega q^r \beta^r (\beta^r + q^r)}{\omega q^r \beta^r} = M \Rightarrow \frac{9\omega + (r+9\omega)}{r}$$

$$q^r + \beta^r = S^r - rSP$$

$$q^r + \beta^r = 150 - \frac{r}{\omega} \times \omega \times r = 90$$

$$q^r \beta^r = r \quad r_0$$

$$\alpha\beta = r \rightarrow \beta = \frac{r}{\alpha}$$

$$\frac{\alpha^r + \beta^r}{\omega} = \frac{S^r - rSP}{\omega} = 19$$

$$= \frac{r \times 90}{r} = \boxed{15r\omega}$$

$$ax^2 + bx + c = 2x + 10 \rightarrow ax^2 + (b-2)x - 9 = 0 \quad (4)$$

ریشه های $x=2, -3$ داشته باشد.

$$x=2 \rightarrow a(2)^2 + (b-2)2 - 9 = 0 \rightarrow 4a + 2b - 10 = 0 \rightarrow 2a + b = 5 \quad (1)$$

$$x=-3 \rightarrow a(-3)^2 + (b-2)(-3) - 9 = 0 \rightarrow 9a - 3b - 9 = 0 \rightarrow 3a - b = 3 \quad (2)$$

$$(1) \text{ و } (2) \rightarrow 2a + (b-3a) = 5 \rightarrow -a + b = 5 \rightarrow a = b - 5$$

$$g = x^2 + 2x + 4 \quad \frac{-b}{2a} = \frac{-2}{1} = -1, a = 1 \text{ مقدار } x \text{ است}$$

(10) معادله تابع، ریشه های $y=x$ قرار می دهیم، سپس m را می یابیم و بررسی می کنیم که معادله 1، ریشه مثبت داشته باشد یا نه، و یا منفی باشد یا نه.

$$2x^2 + (m+1)x + m + 4 = x \rightarrow 2x^2 + mx + (m+4) = 0 \rightarrow \Delta = 0$$

$$m^2 - 4(m+4) = m^2 - 4m - 16 = 0 \quad (m-12)(m+4) = 0$$

$$m = -4, 12$$

$$\frac{-m}{2} > 0 \rightarrow -m > 0 \rightarrow m < 0 \Rightarrow \boxed{m = -4}$$