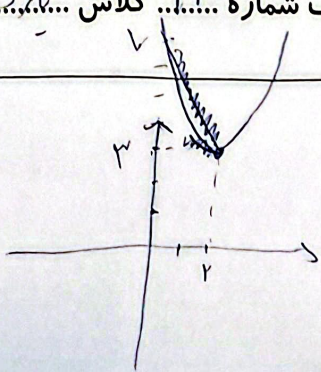
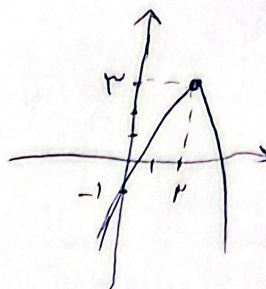


الف)



ب)



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$$\Delta = 0 \Rightarrow m = -2 \leq m = 2$$

(ب)

$$\Delta > 0 \Rightarrow m^2 + 2m + 1 - 2m + 1 > 0 \Rightarrow m^2 - 2m - 1 > 0 \Rightarrow m < -1 \vee m > 2$$

الف)

$$\Delta \geq 0 \Rightarrow m \leq -2 \vee m \geq 2$$

ب)

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

ج)

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$$\Delta > 0 \Rightarrow 4m^2 + 16m + 4 - 6m + 1 > 0 \Rightarrow 4m^2 + 10m + 5 > 0$$

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

$$P > 0 \Rightarrow m > 2$$

$$\Delta > 0 \checkmark \quad -1 < m < 2$$

$$S < 0 \Rightarrow \text{crossed out}$$

$$P < 0 \Rightarrow m < 2$$

$$-1 < m < 2$$

(ب)

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$$P < 0 \Rightarrow m < 2$$

الف)

$$\frac{-b}{2a} = -2 \Rightarrow \frac{4m+2}{2m-4} = -2 \Rightarrow m = 1$$

(ب)

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$$4x^2 - 12(\sin \alpha)x + 9 = 0$$

$$\sin \alpha = 1 \Rightarrow \Delta = 0$$

$$\Delta = \frac{12 \sin \alpha \pm \sqrt{144 \sin^2 \alpha - 144}}{8} = \frac{12}{4} = 3$$

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

$$s_x = \frac{1}{r} \rightarrow \text{max. } \delta = \frac{-r \times 199}{-1 + 199} + \frac{199}{199} + \delta$$

$$= \frac{199}{r} + \delta = \frac{r}{r}$$

$$rs = \delta p + v \rightarrow 1 \rightarrow \frac{r}{r} = \frac{1}{r} + \frac{1}{r} = \frac{2}{r}$$

$$\alpha^r + \beta^r = s(-r) \rightarrow \alpha^r + \beta^r = -r$$

$$\frac{m+r}{n} = \frac{10}{m} + v \rightarrow m \neq 0 \rightarrow \frac{m+r}{n} = \frac{v_m - 10}{r_m} \rightarrow v_m - 10 = r_m + 9m$$

$$m = r \rightarrow p = \frac{-r}{+f} = -\frac{1}{r} \rightarrow s = \frac{r}{f} = \frac{r}{r}$$

$$f_m^r - 19m = 0 \rightarrow f \rightarrow \delta > 0 \checkmark$$

$$x^r - \delta x + r = 0 \rightarrow p = r \rightarrow s = \delta$$

$$\frac{f\alpha + \beta^{\delta}}{\delta \beta^r} = \frac{9\delta(\delta \beta - r)}{\delta(\delta \beta - r)} = \frac{9\delta}{\delta} = 9$$

$$\beta^r = \delta \beta - r \rightarrow \beta \in B(\delta \beta - r)$$

$$\beta^r = 1 \dots \Rightarrow \beta \geq r + 9\beta - 10$$

$$f\alpha + \beta^{\delta} = 9\delta(\delta \beta - r)$$

$$9\alpha = \delta - \beta$$

$$ax^r + bx + r = rx + 10 \rightarrow ax^r + (b-r)x - 9 = 0$$

$$\frac{r}{r}x^r + \frac{b-r}{r}x - \frac{9}{r} = 0$$

$$\frac{-\frac{b-r}{r}}{\frac{r}{r}} = -\frac{r}{r}$$

$$f\alpha - 9 = 0 \rightarrow \alpha = \frac{9}{r}$$

$$\frac{r}{r}x^r + \frac{b-r}{r}x - \frac{9}{r} = 0 \rightarrow b = r, \delta = \frac{9}{r}$$

$$f(n) = r n^r + (m+1)q + n + s = x \rightarrow r n^r + m n + m + 4 = 0$$

$$m = r + m + 1 = 1 \rightarrow r n^r + m n + m + 4 = 0$$

$$n^r - m - 4 = 0$$

نکته: این معادله را باید بررسی کرد.