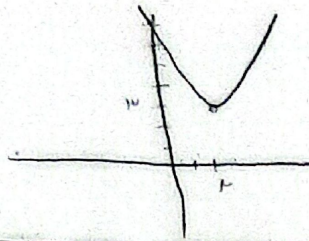
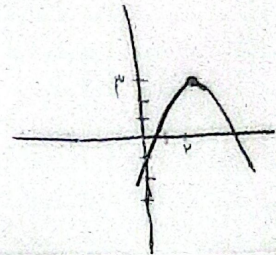


نام و نام خانوادگی: ..... پاسخنامه تشریحی تکلیف شماره ..... کلاس: ..... تاریخ: .....

الف)  $y = x^2 - 2m + 1$   $a > 0 \rightarrow \min$   
 $\min \left| \begin{array}{l} -\frac{b}{2a} \rightarrow \frac{2}{2} = 1 \\ \frac{4ac - b^2}{4a} \end{array} \right|$



ب)  $y = -x^2 + 2m - 1$   $a < 0 \rightarrow \max$   
 $\max \left| \begin{array}{l} -\frac{b}{2a} \rightarrow 1 \\ \frac{4ac - b^2}{4a} \end{array} \right|$



1

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

الف)  $\Delta > 0 \rightarrow \Delta = b^2 - 4ac \rightarrow m^2 + 2m + 1 - 4(\frac{1}{m} + 2) > 0 \rightarrow m^2 + 2m - 15 > 0 \rightarrow (m-5)(m+3) > 0$   
 $\frac{-3}{+5} \quad \frac{-5}{+3} \rightarrow m > 5 \text{ یا } m < -3$  الف

ب)  $\Delta = 0 \rightarrow m = 5, -3$

ج)  $\Delta < 0 \rightarrow -3 < m < 5$

د)  $\Delta \geq 0 \rightarrow m \geq 5 \text{ یا } m \leq -3$

2

$y = (m-2)x^2 - x(m+1)x + 1$   $a \neq 0 \rightarrow m-2 \neq 0 \rightarrow m \neq 2$

الف)  $P > 0 \rightarrow \frac{c}{a} > 0 \rightarrow \frac{1}{m-2} > 0 \rightarrow m > 2$  ①  
 $S < 0 \rightarrow -\frac{b}{a} < 0 \rightarrow \frac{m+1}{m-2} < 0 \rightarrow \frac{-1}{+5} \quad \frac{+1}{-3} \rightarrow -1 < m < 2$  ②  
 $\Delta > 0 \rightarrow 1 - 4(m-2)(m+1) > 0 \rightarrow m^2 - 6m + 7 > 0 \rightarrow (m-3)^2 - 2 > 0$   
 $m^2 - 6m + 7 > 0 \rightarrow m^2 - 6m + 9 > 2 \rightarrow (m-3)^2 > 2$   
 $(1) \cap (2) \cap (3) \rightarrow \emptyset$  جواب: خالی است ③

ب)  $P < 0 \rightarrow \frac{c}{a} < 0 \rightarrow \frac{1}{m-2} < 0 \rightarrow m < 2$  ①  
 $\Delta > 0 \checkmark$  ②  
 $S < 0 \rightarrow -1 < m < 2$  ③  
 $(1) \cap (2) \cap (3) \rightarrow -1 < m < 2$

3

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

الف) ①  $a < 0 \rightarrow m-2 < 0 \rightarrow m < 2$   
 $\Delta > 0 \rightarrow$  جواب مثبت  
 $P < 0 \rightarrow \frac{1}{m-2} \rightarrow m < 2$   
 ب) ②  $a > 0 \rightarrow m-2 > 0 \rightarrow m > 2$   
 $\Delta > 0 \rightarrow$  جواب مثبت  
 $P < 0 \rightarrow m < 2$   
 اجتماع  $\rightarrow m < 2$

ب)  $2x^2 - 2 = 0$  اول و آخر  
 $-\frac{b}{2a} = -1 \rightarrow \frac{m+1}{m-2} = -1$   
 $m^2 + 1 = -m^2 + 4 \rightarrow 2m^2 = 3 \rightarrow m = \pm \frac{\sqrt{6}}{2}$

4

$\frac{2m^2}{3} - (2 \sin \alpha) \frac{m^2}{3} = 0$

معادله درجه دوم  $\rightarrow \Delta \geq 0 \rightarrow 4 \sin^2 \alpha - 4 \geq 0 \rightarrow \sin^2 \alpha \geq 1 \Rightarrow \sin^2 \alpha = 1 \rightarrow \sin \alpha = \pm 1$   
 $\frac{2}{3} m^2 - 2m + \frac{2}{3} = 0 \rightarrow m = \frac{2 \pm \sqrt{0}}{\frac{4}{3}} = \frac{3}{2}$   
 $\frac{2}{3} m^2 + 2m + \frac{2}{3} = 0 \rightarrow m = \frac{-2 \pm \sqrt{0}}{\frac{4}{3}} = -\frac{3}{2} \alpha = \pm \frac{\pi}{2}$

5

$$y_n = \frac{(r_n^2 - r_{n-1}^2)(r_n^2 - r_{n-1}^2 - \omega)}{1 - r_n^2} = \frac{(-1)(r_{n+1}^2)(r_n^2 - \omega)}{(1 - r_n^2)(1 - r_n^2)} \xrightarrow{n \neq 1} \frac{4r_n^2}{1 - r_n^2} = 4$$

$$\text{mean} \left| -\frac{\Delta}{2a} \rightarrow \frac{144 - \Sigma(-r_n)}{r \Sigma} = \frac{144}{r \Sigma} \right.$$

$$rS = \omega P + V \Rightarrow r\left(-\frac{b}{a}\right) = \omega\left(\frac{c}{a}\right) + V \Rightarrow r^P\left(\frac{m+r}{m}\right) = \omega\left(-\frac{r}{m}\right) + V$$

$$\frac{r_{m+4}}{m} = \frac{V_{m-1}}{m} \rightarrow 142 \text{ km} \rightarrow m = 2 \text{ km} \xrightarrow{\text{multiplication}} \Sigma m^2 - 4m - r_2 b_{m-1}^2 - 120$$

$$\alpha^r + \beta^r = S^r - rP \Rightarrow \frac{9}{2} + 1 = \left(\frac{14}{2}\right)$$

$$\frac{\Sigma \alpha + \beta \omega}{\omega \beta r} = \frac{\Sigma \alpha}{\omega \beta r} + \frac{\beta \omega}{\omega} \xrightarrow{①} \frac{\Sigma \alpha}{\frac{r}{\alpha r}} + \frac{\beta \omega}{\omega} = \frac{\alpha^r}{\omega} + \frac{\beta^r}{\omega} = \frac{1}{\omega}(\alpha^r + \beta^r)$$

$$\alpha \times \beta = r \Rightarrow \beta = \frac{r}{\alpha} \Rightarrow \omega \beta^r = \frac{r^r}{\alpha^r} \text{ ①}$$

$$= \frac{1}{\omega}(S^r - rP) = \frac{1}{\omega}(14\omega - r_c) = 19$$

$$\left. \begin{array}{l} y_{r+1} = r_{n+1} \xrightarrow{n \neq r} y_r = 14 \Rightarrow \left| \begin{array}{l} r \\ r \end{array} \right| \rightarrow \Sigma a + r b = 10 \\ y_r = r \Rightarrow \left| \begin{array}{l} -r \\ r \end{array} \right| \rightarrow 9a - r b = 0 \Rightarrow r a = b \end{array} \right\} \Rightarrow \left. \begin{array}{l} \Sigma a + 4a = 10 \\ a = 1 \\ b = r \end{array} \right\}$$

$$\text{Slope} = -\frac{b}{ra} = -\frac{r}{r} = \left(-\frac{r}{r}\right)$$

$$r_n^2 + (m+1)n + m + 4 = n \Rightarrow r_n^2 + mn + m + 4 = 0 \xrightarrow{\Delta \geq 0} m^2 - 4m - \Sigma \Delta \geq 0 \Rightarrow (m-1)(m+2) = 0$$

$$m = 1, m = -2$$