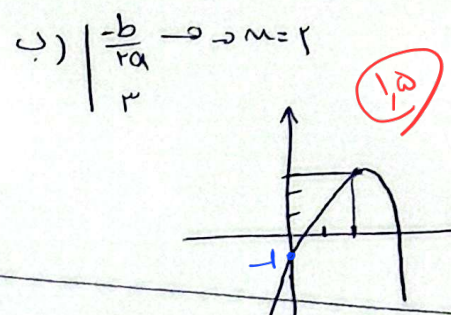
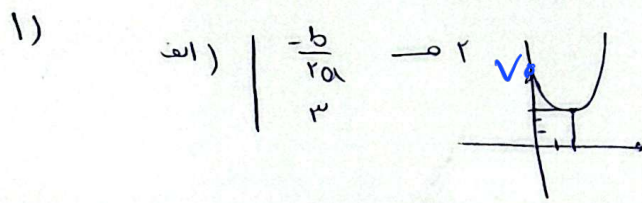


17, 15

باريس عباسين - شيف 12



2) الف) $\Delta \geq 0 \rightarrow (m+1)^2 - 4\left(\frac{1}{r}m+2\right) \geq 0 \rightarrow m^2 - 2m - 1 \geq 0 \rightarrow (m-1)(m+3) \geq 0$
 $m \leq -3 \cup m \geq 1$

ب) $\Delta = 0 \rightarrow m^2 - 2m - 1 = 0 \rightarrow (m-1)(m+3) = 0 \rightarrow m = \{-3, 1\}$

ج) $\Delta < 0 \rightarrow (m+1)^2 - 4\left(\frac{1}{r}m+2\right) < 0 \rightarrow m^2 - 2m - 1 < 0 \rightarrow \frac{-2 \pm \sqrt{4+4}}{2} \rightarrow -1 < m < 1$

د) $\Delta \geq 0 \rightarrow (m+1)^2 - 4\left(\frac{1}{r}m+2\right) \geq 0 \rightarrow m^2 - 2m - 1 \geq 0 \rightarrow \frac{-2 \pm \sqrt{4+4}}{2} \rightarrow m \leq -3 \cup m \geq 1$

3) الف) $\Delta \geq 0 \rightarrow f(m+1)^2 - f(m-1)^2 \geq 0 \rightarrow 4m^2 - 4m - 1 \geq 0 \rightarrow m \in \mathbb{R}$
 ب) $\Delta < 0 \rightarrow \frac{1}{m-1} > 0 \rightarrow \frac{1}{m-1} > 0 \rightarrow m \in (1, +\infty)$
 ج) $\Delta < 0 \rightarrow \frac{f(m+1)}{m-1} < 0 \rightarrow \frac{-1}{m-1} < 0 \rightarrow m \in (-1, 1)$

د) $\Delta \geq 0 \rightarrow m \in \mathbb{R}$
 ب) $\Delta < 0 \rightarrow \frac{1}{m-1} > 0 \rightarrow m \in (1, +\infty)$
 ج) $\Delta < 0 \rightarrow \frac{f(m+1)}{m-1} < 0 \rightarrow \frac{-1}{m-1} < 0 \rightarrow m \in (-1, 1)$

4) الف) $\Delta \geq 0 \rightarrow f(m+1)^2 - f(m-1)^2 \geq 0 \rightarrow m \in \mathbb{R}$
 ب) $\Delta < 0 \rightarrow \frac{1}{m-1} < 0 \rightarrow \frac{1}{m-1} < 0 \rightarrow m < 1$

ج) $m \rightarrow \frac{-b}{ra} = -1 \rightarrow \frac{f(m+1)}{f(m-1)} = -1 \rightarrow m = 1$

$$a) \Delta > |(r \sin \alpha)^r - f(\frac{r}{f}(\frac{r}{f}))| \geq \epsilon \rightarrow r \sin^r \alpha \geq \epsilon \rightarrow \sin^r \alpha \geq \frac{\epsilon}{r} \rightarrow \sin^r \alpha = 1$$

$$\sin \alpha = \sqrt[r]{1} \rightarrow \frac{r}{f} m^r - r m + \frac{r}{f} = 0 \rightarrow m = \frac{r \pm \sqrt{r^2 - 4 \cdot \frac{r}{f} \cdot \frac{r}{f}}}{2 \cdot \frac{r}{f}} = \frac{r}{f}$$

$$4) \frac{-\Delta}{f \alpha} \rightarrow \frac{-(r m + 1)(-m + 1)(r m - \alpha)(m + 1)}{(1 - m)(1 + m)} = -4 m^r + 1 r m + \Delta$$

$$y = \frac{-(1 r^r - f(-4)(\Delta))}{-r f} = \frac{1 r^r + 4 f \Delta}{r f}$$

$$v) r(\alpha + \beta) = \Delta \alpha \beta + r \rightarrow r(\frac{m+r}{m}) = -\frac{1}{m} + r \rightarrow \frac{r m + r}{m} = \frac{-1 + r m}{m}$$

$$S = \alpha + \beta \rightarrow \frac{m+r}{m} \rightarrow \alpha + \beta = \frac{r}{f} = \frac{r}{f}$$

$$r m \leq 4 \rightarrow r = m$$

$$p - \alpha \beta = -\frac{r}{m} \rightarrow \alpha \beta = \frac{r}{f} = -\frac{1}{r} \rightarrow r - r p = \alpha^r + \beta^r \rightarrow \frac{9}{\epsilon} + 1 = \frac{10}{\epsilon}$$

$$a) \beta^r = \alpha \beta - r$$

$$\beta^r = \beta \cdot \beta^r = \beta(\alpha \beta - r) = \alpha \beta^r - r \beta = \alpha(\alpha \beta - r) - r \beta = r \alpha \beta - 1 - r \beta = r \alpha \beta - 1$$

$$\beta^r = \beta \cdot \beta^r \rightarrow \beta(r \alpha \beta - 1) = r \alpha \beta^r - 1 \cdot \beta = r \alpha(\alpha \beta - r) - 1 \cdot \beta = 1 \cdot \alpha \beta - \epsilon 4$$

$$\beta^r = \beta \cdot \beta^r \rightarrow \beta(1 \cdot \alpha \beta - \epsilon 4) = 1 \cdot \alpha \beta^r - \epsilon 4 \beta = 1 \cdot \alpha(\alpha \beta - r) - \epsilon 4 \beta = \epsilon 4 \alpha \beta - 11$$

$$\frac{r \alpha + \beta^a}{\alpha \beta^r} = \frac{r(\alpha - \beta) + r \alpha \beta - r 1}{\alpha \beta^r} = \frac{r \alpha \beta - 1}{\alpha \beta^r} = \frac{9 \alpha \beta - 1}{\beta^r}$$

$$\rightarrow \frac{9 \alpha \beta - 1}{\alpha \beta - r} = 19$$

$$a) y = \begin{bmatrix} r \\ f \end{bmatrix} \rightarrow f = 4 \alpha - r b + f \rightarrow r a - b = 0$$

$$y = \begin{bmatrix} r \\ f \end{bmatrix} \rightarrow 1 f = r a + r b + f \rightarrow r a + r b = 1$$

$$\rightarrow r = r m + 1 \rightarrow m = r \rightarrow y = 1 f$$

$$\rightarrow m = -r \rightarrow y = 1 f$$

$$\begin{cases} r a - b = 0 \\ r a + r b = 1 \end{cases} \rightarrow \begin{cases} 1 r a - r b = 0 \\ r a + r b = 1 \end{cases} \Rightarrow 14 a = 1 \rightarrow a = \frac{1}{14}$$

$$b = \frac{1}{14}$$

$$\begin{cases} r a + r b = 1 \\ 9 a - r b = 0 \end{cases} \rightarrow a = 1, b = r$$

$$x = \frac{r}{f}$$

$$\rightarrow \frac{1}{14} a^r - \frac{1}{14} m + \epsilon = 0$$

$$m = \frac{-b}{r a} = \frac{r}{f}$$

$$10) y = m \rightarrow 2m^2 + (m+1)m + m + 4 = m$$

$$\rightarrow 2m^2 + mm + m + 4 =$$

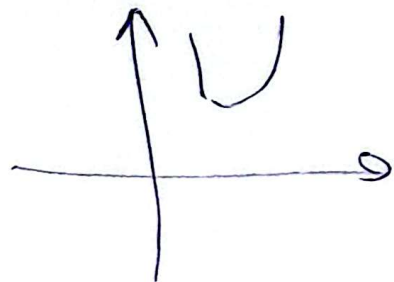
$$\Delta = \dots \rightarrow m^2 - 1(m+4) = \dots \rightarrow m^2 - 1m - 4 = \dots$$

$$(m-1)(m+4) = \dots$$

$\downarrow$
1

$\downarrow$
-4

5



11.

$$m = \frac{-b}{2a} > \dots$$

$\rightarrow m+1 < \dots$
 $m < -1$

$\hookrightarrow m = -1.55 \checkmark$

$$m = 1.00 \dots$$