

بارهم دختر

.. نصف ! ..

مختار سلو

الف) $4x^2 - 20x - 4 = 0 \rightarrow x^2 - 5x - 1 = 0 \rightarrow (x-9)(x+4) = 0 \Rightarrow x \rightarrow \frac{9}{4} = \frac{10}{4} = 1,0$ (سؤال 1)

ب) $10x^2 - 18x - 1 = 0 \rightarrow x^2 - 1,8x - 0,1 = 0 \rightarrow (x-9)(x+1) = 0 \Rightarrow x \rightarrow \frac{9}{10} = \frac{10}{10} = 1,0$
 $\frac{-1}{10} = -0,1$

ج) $14x^2 - 14x - 1 = 0 \rightarrow x^2 - x - 0,1 = 0 \rightarrow (x-4)(x+1) = 0 \Rightarrow x \rightarrow \frac{4}{14} = \frac{10}{14} = 1,0$
 $\frac{-1}{14} = -0,07$

د) $14x^2 - 20x - 1 = 0 \rightarrow x^2 - 1,4x - 0,1 = 0 \rightarrow (x-1)(x+1) = 0 \Rightarrow x \rightarrow \frac{1}{14} = \frac{1}{14}$
 $\frac{-1}{14} = -0,07$

الف) $(x-1)(x+1) = 0 \rightarrow x \rightarrow 1$
 $x \rightarrow -1$

ب) $1x^2 + 20x + 1 = 0 \rightarrow x^2 + 20x + 1 = 0 \rightarrow (x+1)(x+1) = 0 \rightarrow x \rightarrow \frac{-1}{1} = -1$
 $\frac{-1}{1} = -1$

ج) $x^2 + 14x + 1 = 0 \rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 14 - 14 = 0 \Rightarrow \Delta < 0 \Rightarrow$ فاقد حلا

د) $10x^2 + 14x - 1 = 0 \rightarrow \Delta = b^2 - 4ac \Rightarrow \Delta = 14 + 14 = 28 \Rightarrow x = \frac{-b \pm \sqrt{\Delta}}{2a} \Rightarrow x = \frac{-14 \pm \sqrt{28}}{20}$

$A \times B = \sim \{ (1,1) (1,2) (2,1) (2,2) (3,1) (3,2) \}$
 $B^c = B \times B \sim \{ (1,1) (1,2) (2,1) (2,2) \}$ (سؤال 10)

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

$m \rightarrow 1 \rightarrow f(m) = \{ (1,1) (1,2) (2,1) (2,2) (3,1) (3,2) \} \rightarrow \overline{000}$

$m \rightarrow -1 \rightarrow f(m) = \{ (1,1) (1,2) (2,1) (2,2) (3,1) (3,2) \} \rightarrow \overline{000} \Rightarrow \boxed{m = -1}$

ب) $m^2 = m + 1 \rightarrow m \rightarrow 1 \rightarrow \{ (1,1) (1,2) (2,1) (2,2) (3,1) (3,2) \} \rightarrow \overline{000}$
 $m \rightarrow -1 \rightarrow \{ (1,1) (1,2) (2,1) (2,2) (3,1) (3,2) \} \rightarrow \overline{000}$

$f(m) = \{ (1, a^2) (1, 14a-1) (a^2, 14a+1) \}$

$a^2 = 14a - 1$

$a^2 - 14a + 1 = 0 \rightarrow (a-1)(a-1) = 0$

(سؤال 11)
 $a \rightarrow 1 \rightarrow \{ (1,1) (1,1) (1,1) \} \rightarrow \overline{000}$
 $a \rightarrow 14 \rightarrow \{ (1,1) (1,1) (1,1) \} \rightarrow \overline{000}$

$f(m) = \begin{cases} m^2 - 1 & m \leq 1 \\ a^2 + b & 1 \leq m \leq 2 \\ m^2 & m \geq 2 \end{cases} \rightarrow m=1 \Rightarrow 1-1 = a+b \Rightarrow a+b=0 \Rightarrow b=-a$
 $\sim m=2 \Rightarrow 1 = 14a+b \Rightarrow 1 = 14a-a \Rightarrow \boxed{a=1} \Rightarrow \boxed{b=-1}$

$ab = 1 \times -1 = -1$

$$f(m) = \begin{cases} 2m-1 & m \geq k \\ 1-2m & m \leq k \end{cases} \quad \begin{matrix} m=k \\ \omega k = 1 \end{matrix} \quad \begin{matrix} 2k-1 = 1-2k \\ \omega k = 1 \end{matrix} \Rightarrow \boxed{k = \frac{1}{\omega}} = 1, 1$$

الف) $y^1 - 4y = m^1 - 4m + 1 \Rightarrow y_1^1 - 4y_1 = m_1^1 - 4m_1 + 1$
 $y_1^1 - 4y_1 = m_1^1 - 4m_1 + 1 \Rightarrow y_1^1 - 4y_1 = m_1^1 - 4m_1 + 1$
 $(y_1 - y_r)(y_1^1 + y_1 y_r + y_r^1 - 4) = 0$
 $\hookrightarrow y_1 = y_r \quad \Delta = y_r^1 - 4(y_r - 4) = y_r^1 - 4y_r + 16$
 $\Delta > 0 \Rightarrow -16y_r^1 + 16 \Rightarrow \Delta > 0 \Rightarrow -16y_r^1 + 16$
 $\Delta < 0 \Rightarrow -16y_r^1 + 16$

ب) $|m| + |y| = 1 \xrightarrow{m=0} |y| = 1 \Rightarrow y = \pm 1 \Rightarrow \Delta \cdot \text{تابع}$

ج) $|y| = \sqrt{1 - \cos m} \Rightarrow 1 - \cos m \geq 0 \Rightarrow 1 \geq \cos m \Rightarrow \cos m = 0 \Rightarrow |y| = \sqrt{1-0} \Rightarrow |y| = 1$
 $\Delta \cdot \text{تابع} \leftarrow y = \pm 1$

د) $y^1 + (n+1)^1 = 0 \Rightarrow y = 0 \Rightarrow n = -1 \Rightarrow \Delta \cdot \text{تابع}$

الف) $\sqrt{y_1} = -m_1^1 + 1m_1 - 1 \Rightarrow m_1 = m_r \Rightarrow \sqrt{y_1} = \sqrt{y_r} \Rightarrow y_1 = y_r \Rightarrow \Delta \cdot \text{تابع}$

ب) $y_1^1 + 1y_1 = \omega m \Rightarrow y_1^1 + 1y_1 = y_r^1 + 1y_r \Rightarrow y_1^1 - y_r^1 = 1y_r - 1y_1$
 $(y_1 - y_r)(y_1^1 + y_1 y_r + y_r^1 + 1) = 0 \Rightarrow y_1 = y_r \checkmark$
 $y_1^1 + y_1 y_r + y_r^1 + 1 = 0$

$\Delta = y_r^1 - 4(y_r^1 + 1) \Rightarrow \Delta < 0 \Rightarrow \Delta \cdot \text{تابع}$

الف) $m \sin y = y \sin m \Rightarrow m = y \Rightarrow \Delta \cdot \text{تابع}$

ب) $\left(\sqrt{\frac{m}{y}} + \sqrt{\frac{y}{m}}\right)^2 = (1)^2 \Rightarrow \frac{m}{y} + \frac{y}{m} = 1 \Rightarrow m^2 + y^2 - 1my = 0$
 $(m-y)^2 = 0 \Rightarrow m, y \in \mathbb{R}$
 $\Delta \cdot \text{تابع}$