

$$a = 6$$

$$\frac{(y, 1)}{(y, -1)} = (y, -\frac{1}{x})$$

$$\frac{(0, \frac{y}{x})}{(0, \frac{y}{x})} = (0, 1)$$

$$\frac{1}{x} = y$$

$f(r_m) = \left\{ \left(\frac{1}{r}, r \right), \left(\frac{r}{r}, -1 \right), (r, r), \left(-\frac{1}{r}, r \right) \right\}$

2.) $\{ (-2, 19), (1, 10), (3, 9), (-1, 1) \}$

$$2) \quad \checkmark \quad \checkmark \quad \lim_{x \rightarrow 1} \frac{(1-x)}{(1-x)} = (1-1) \quad \frac{(1-1)}{(1-1)} = (1-1)$$

$\gamma \checkmark$ $\mu \checkmark$ $\kappa \times$ $\lambda \checkmark$

$$\begin{array}{c} + \\ (r_2 r) + (r_2 r) \rightarrow (r_2 \omega) \\ \swarrow \quad \searrow \\ r_2 \quad r \end{array}$$

$$L = \{ (1, \omega), (3, \omega), (-1, \gamma) \}$$

$$(1, 2) + (1, 3) = (2, 5)$$

$$(-r, 0) + (-r, 4) = (-r, 4)$$

$$\left(\frac{f}{g+1}\right)^{(n)} \rightarrow g \neq -1 \Rightarrow n \in \mathbb{Z} \checkmark$$

$$\textcircled{II} \rightarrow \nu_m \gg \cdot \rightarrow \nu \gg \cdot \quad \textcircled{III} \rightarrow \mu \neq -\nu$$

$$\textcircled{I} \cap \textcircled{II} \cap \textcircled{III} = \{0, 6, 14\}$$

$$\begin{array}{c} 0 \quad 1' \\ + \text{ } \text{ } - \text{ } + \end{array}$$

$$\sqrt{\mu_n - n} \geq \dots \rightarrow \mu \leq \mu_n$$

$$\sqrt{-n^2 + 2n - 1} = \sqrt{-(n-1)(n-1)} \quad h(n) = \frac{f(n)}{g(n)} \rightarrow h(n) = \left\{ (1,0), (2,0), \left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2} \right) \right\}$$

$$\frac{1}{-0+0} \rightarrow \infty$$

$$\Delta x^2 - \varepsilon - \varepsilon = 2$$

الف) $\mathbb{R} \xrightarrow{f} (n-1)^2 + 1 = y \quad y-1 = (n-1)^2 \rightarrow n-1 = \sqrt{y-1}$
 $n = 1 + \sqrt{y-1}$
 $\mathbb{R}_f = \mathbb{R}$

ب) $y n^2 - 2n y = 1$
 $y n^2 - 2n y - 1 = 0$
 $2y \pm \sqrt{4y^2 - 4(-y)}$
 $n = \frac{2y \pm \sqrt{4y^2 + 4y}}{2y}$

$f y^2 + f y \geq 0$
 $y^2 + y \geq 0$
 $y(y+1) \geq 0 \rightarrow \frac{-1}{+0-0} \rightarrow (-\infty, -1] \cup [0, +\infty)$

الف) $\min$ لـ $\frac{f}{g} = 2$
 $\frac{f}{g} = \frac{1}{n+1} \rightarrow \mathbb{R}_f = [4, +\infty)$
 $-9 + 18 = 9$

ب) $\max$ لـ $\frac{f}{g} = 2$
 $\frac{f}{g} = \frac{1}{n+1} \rightarrow \mathbb{R}_f = (-\infty, 12]$
 $-9 + 18 + 3 = 12$

ج) $\sqrt{n^2 - 4n - 3} = \frac{f}{g} = 2$
 $\frac{f}{g} = \frac{1}{n+1} \rightarrow \mathbb{R}_f = [0, +\infty)$
 $\frac{f}{g} = \frac{1}{n+1} \rightarrow \mathbb{R}_f = [0, 3]$

الف) $\rightarrow \mathbb{R}$
 ب) $\rightarrow \mathbb{R}$
 ج) $\mathbb{R} \xrightarrow{\sqrt{\cdot}} [0, +\infty)$
 د) $\mathbb{R} \xrightarrow{\sqrt{\cdot}} [0, +\infty)$

الف) $\frac{3n+1}{n-2} \rightarrow \mathbb{R} - \{2\}$
 ب) $\frac{3n+1}{n+1} \rightarrow \mathbb{R} - \{2\}$