

الف) $\sin \gamma_1 \neq 0 \rightarrow \sin \gamma_1 \neq 1 \rightarrow \gamma_1 \neq \frac{\pi}{2}$ $D_f = R - \left\{ \frac{k}{\gamma} \mid k \in \mathbb{Z} \right\}$	ب) $\gamma \sin \gamma_1 \neq 0 \rightarrow \gamma \sin \gamma_1 \neq 1$ $\rightarrow \sin \gamma_1 \neq \pm \frac{1}{\gamma} \rightarrow \gamma_1 \neq \frac{k\pi}{\gamma} + \frac{\pi}{2}$ $D_f = R - \left\{ \frac{k}{\gamma} + \frac{\pi}{\gamma} \mid k \in \mathbb{Z} \right\}$
الف) $1 \leq \gamma \leq 0.5 \leq 1 \rightarrow 1 \leq \gamma_1 - \gamma \leq 1$ $\gamma \leq \gamma_1 \leq \frac{1}{\gamma} \rightarrow \gamma_1 \in [-\frac{1}{\gamma}, -\gamma] \cup [\gamma, \frac{1}{\gamma}]$ $D_f = [-\frac{1}{\gamma}, -\gamma] \cup [\gamma, \frac{1}{\gamma}]$	ب) $1 \leq \gamma \leq 0.5 \leq 1 \rightarrow 1 \leq \gamma_1 - \gamma \leq 1$ $\rightarrow \gamma_1 \in [-\frac{1}{\gamma}, -\gamma] \cup [\gamma, \frac{1}{\gamma}]$ $D_f = [-\frac{1}{\gamma}, -\gamma] \cup [\gamma, \frac{1}{\gamma}]$
الف) $\gamma - \gamma_1 > 0 \rightarrow \gamma_1 < \gamma$ $\gamma - \log_{\gamma}(\gamma - \gamma_1) > 0 \rightarrow \log_{\gamma}(\gamma - \gamma_1) < \gamma$ $\rightarrow \gamma - \gamma_1 \leq \gamma \rightarrow \gamma_1 \geq 0$ $D_f = (\gamma, 1]$	ب) $\gamma - \gamma_1 > 0 \rightarrow \gamma_1 < \gamma$ $\rightarrow \log_{\gamma}(\gamma - \gamma_1) < \gamma$ $\rightarrow \gamma - \gamma_1 \leq \gamma \rightarrow \gamma_1 \geq 0$ $D_f = (-1, 0) \cup (1, +\infty)$
الف) $\gamma_1 \neq 0$ $\rightarrow \gamma_1 \neq 1 \rightarrow \gamma_1 \neq 0$ $D_f = R$	ب) $\gamma_1 \neq 0$ $\rightarrow \gamma_1 \neq 1 \rightarrow \gamma_1 \neq 0$ $D_f = R - \left\{ \frac{1}{\gamma} \right\}$
الف) $\gamma_1 \in \mathbb{R} \rightarrow \gamma_1 \in -1 \rightarrow \gamma_1 \in \frac{-1}{\gamma}$ $D_f = \left\{ \frac{k}{\gamma} \mid k \in \mathbb{Z} \right\}$	ب) $\gamma_1 \in \mathbb{R} \rightarrow \gamma_1 \in -1 \rightarrow \gamma_1 \in \frac{-1}{\gamma}$ $D_f = R - \left\{ \frac{1}{\gamma} \right\}$