

الف) $x|x| \neq 0 \rightarrow D_f = \mathbb{R}^+ \cup \{0\}$ $D_g = \mathbb{R}$ $\times$ متناهی نیست

ب) $\checkmark$ متناهی است

ج) $\sin x \neq \frac{\pi}{2} \checkmark$ $D_{f,g} = \mathbb{R}$ $\checkmark$ متناهی است

د) $x \neq 0$ $D_{f,g} = \mathbb{R} - \{0\}$ $\checkmark$ متناهی است

الف) $\checkmark$ متناهی است $\leftarrow$ $\begin{matrix} \nearrow \\ \nwarrow \end{matrix}$ $\begin{matrix} \text{صفر} \\ \text{صفر} \end{matrix}$ $\begin{matrix} \text{صفر} \\ \text{صفر} \end{matrix}$

ب) $\{x\} \neq 0 \rightarrow D_f = \mathbb{R} - \{0, \frac{1}{2}\}$ $\{x\} \neq 0$ $D_g = \mathbb{R} - \{0, 1\}$ $\times$ نیست

ج) $D_f = \emptyset$ $D_g = \mathbb{R}^-$ $\times$ نیست

د) $\checkmark$

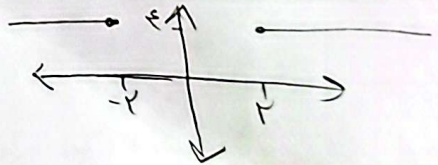
$$\begin{aligned} f(x) + g(x) &= x^2 + x + 1 \\ f(x) - g(x) &= x^2 - x + 1 \end{aligned}$$

$$f'(x) - g'(x) = (x^2 + 1)' - x^2 = x^2 + 1 + 2x - x^2 = x^2 + 1 + 2x$$

$$2g(x) = 2x \rightarrow g(x) = x$$

$$f(x) = x^2 + 1$$

$$(x - \sqrt{x^2 - 4})(x + \sqrt{x^2 - 4}) = x^2 - (x^2 - 4) = 4$$



$$x^2 - 3x - 1 \neq 0 \rightarrow x \neq \frac{0}{2}, -1 \quad D_f = \mathbb{R} - \left\{ \frac{0}{2}, -1 \right\}$$

$$(x-0)(x+2)$$

$$(x+1)(x-\frac{0}{2}) = x^2 - \frac{3}{2}x - \frac{0}{2} \rightarrow m = \frac{3}{2}, n = \frac{0}{2}$$

$$\begin{aligned} 2ax + 4 &= a - b \xrightarrow{x=0} b = -4 \\ \xrightarrow{x=1} a &= \frac{1}{2} \end{aligned}$$

$$am - bn = \frac{1}{2} \times \frac{3}{2} - \left(-\frac{0}{2} \times -\frac{1}{2} \right) = \frac{3}{4}$$

الانسانی

دستور خط B

$$a = \frac{-b}{\lambda} \rightarrow b = -\lambda a$$

$$\frac{ab}{c} = \pm \kappa$$

$$\frac{-\lambda a + r}{\lambda a - \lambda a} \xrightarrow{\alpha=1} \frac{r}{-\lambda a} = \frac{1}{\kappa a} = c = \pm \frac{1}{r}$$

$$\frac{-\lambda a + r}{\lambda - \lambda a} = \frac{1}{\kappa a} \Rightarrow \cancel{\lambda} a - \lambda = -\frac{\kappa a r}{\cancel{\lambda}} \Rightarrow a r = \frac{1}{\kappa} \Rightarrow a = \pm \frac{1}{r}$$

$$1f = \{(-1, \kappa), (2, 1), (3, -\kappa), (0, 1)\} \rightarrow f = \{(-1, 2), (2, \kappa), (3, -2), (0, \frac{1}{r})\}$$

$$\frac{r g}{f + g} \xrightarrow{\alpha=1} \frac{-\lambda}{-r} = \kappa \quad \xrightarrow{\alpha=r} \frac{\lambda}{\lambda} = 1 \quad \xrightarrow{\alpha=r} \frac{1}{\kappa} = r$$

$$a = -1 = d \quad -r - b = 1 \quad b = -r$$

$$-1 + 4 = c \quad c = 3$$

$$d + c = -1 + 3 = 2$$

$$\Delta = 1 - \kappa m = 0 \rightarrow m = \frac{1}{\kappa}$$

$$\sqrt{-(x - \frac{1}{r})^2} \rightarrow x = \frac{1}{r}$$

$$\{(\frac{1}{r}, 0)\} \quad a + b = \frac{1}{r}$$

$$\alpha=0 \rightarrow \frac{r}{-c} = \frac{a}{b} \rightarrow r b = -a c$$

$$c = -r \quad b = a$$

$$\lambda a = r a \quad a = 4$$