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نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۱۱... کلاس:
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ا) $\lambda \lambda \geq 0 \Rightarrow D_f = \mathbb{R} \quad D_g = \mathbb{R} \quad f(\lambda) \neq g(\lambda)$

ب)

ج) $\sin x - 2 \neq 0 \Rightarrow \sin x + \frac{1}{2} \neq 0 \Rightarrow -1 \leq \sin x \leq 1 \Rightarrow D_f = \mathbb{R} \quad D_g = \mathbb{R} \Rightarrow f(x) = g(x)$

د) $\lambda \neq 0 \Rightarrow \lambda \neq 0 \Rightarrow D_f = \mathbb{R} - \{0\} \quad D_g = \mathbb{R} - \{0\} \quad f(\lambda) = g(\lambda)$

ا) $\lambda^2 + 1 \neq 0 \Rightarrow \lambda^2 \neq -1 \Rightarrow D_f = \mathbb{R} \quad \lambda \neq 0 \Rightarrow \lambda \neq 0 \Rightarrow \lambda \geq 1 \text{ و } \lambda \leq 0$

ب) $\lambda \neq 0 \Rightarrow \lambda \geq 1 \text{ و } \lambda \leq 0 \quad f(\lambda) = g(\lambda)$

ج) $\lambda - \lambda \neq 0 \Rightarrow \lambda \neq \lambda \quad D_f = \mathbb{R} \quad \lambda \neq \lambda \quad f(\lambda) = g(\lambda)$

د) $D_f = \mathbb{R} \quad D_g = \mathbb{R} \quad \frac{\lambda^2 + \lambda}{\lambda - 1} = \frac{\lambda(\lambda + 1)}{\lambda - 1} = \frac{\lambda(\lambda - 1)(\lambda + 1)}{\lambda - 1} = \lambda + \lambda \quad f(\lambda) = g(\lambda)$

$\begin{cases} f(\lambda) + g(\lambda) = \lambda^2 + \lambda + 1 \\ f(\lambda) - g(\lambda) = \lambda^2 - \lambda + 1 \end{cases} \rightarrow \begin{cases} 2f(\lambda) = 2\lambda^2 + 2 \Rightarrow f(\lambda) = \lambda^2 + 1 \\ g(\lambda) = \lambda \end{cases}$

$f'(\lambda) - g'(\lambda) = (\lambda^2 + 1)' - \lambda' = 2\lambda + 1 - 1 = 2\lambda \quad \lambda^2 + 1 - \lambda = \lambda^2 - \lambda + 1$

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$\lambda^2 - 5\lambda - 5 \neq 0 \Rightarrow \lambda \neq -1 \quad \lambda \neq \frac{5}{2}$

$\lambda^2 - m\lambda + n = (\lambda + 1)(\lambda - \frac{5}{2})$

$\lambda^2 - m\lambda + n = \lambda^2 - 1/2\lambda - 5/2$

$m = 1/2 \quad n = -5/2$

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$$bx + r = c \Rightarrow \wedge cx + bc = bx + r$$

$$\wedge x + b$$

$$c(\wedge x + b) = bx + r$$

$$bx + r = 0 \Rightarrow bx = -r$$

$$\wedge x + b = 0$$

$$\wedge x = -b$$

$$x = \frac{-b}{\wedge} \Rightarrow \frac{-b}{\wedge} = a$$

$$f(x) = 0 \Rightarrow c = 0$$

$$\frac{ab}{c}$$

تقریب

$$f = \{(-1, 1) (1, 1) (1, -1) (0, \frac{1}{1})\} \quad g = \{(1, 1) (1, 1) (-1, -1) (0, 0)\}$$

$$\frac{rg}{f+g} \rightarrow \{(-1, \frac{1}{-1}) (1, \frac{1}{1}) (1, \frac{1}{1})\} \quad R_{rg} = \{1, 1, 1\}$$

$$a = -1 = d$$

$$c = a - rb \Rightarrow c = -1 + 4 = 3 = c$$

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

$$ra - rb = 1 \Rightarrow -1 - rb = 1 \Rightarrow b = -2$$

$$-y^r + x - m \geq 0 \Rightarrow x^r - x + m \leq 0$$

$$\frac{a+b}{ab} = -1$$

$$ab = m$$

$$r(x-c)^r = (x-c)(rx+a)$$

$$\Rightarrow r(x-c) = rx + a \Rightarrow rx - rc = rx + a \Rightarrow a = -rc$$

$$rx^r + rx + rb = rx^r + ax - rcx - ca$$

$$a + b + c = 4 - 1 + 9 = 12$$

$$12x + rb = rx + ca$$

$$rb = -ca \Rightarrow rb = 1 \Rightarrow 2$$

$$ra = 12 \Rightarrow a = 9 \Rightarrow c = -3 \Rightarrow b = 9$$