

نام و نام خانوادگی شماره کلاس بازهم دفترچه A

۲. از بین مقبول نوشتن D دوباره بنویس DP یا Dy

الف) $\frac{x+3}{2x^2+3x^2-11x+3} \neq 0$ $\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \mid \frac{x-1}{2x^2+3x^2-11x+3} = x^2+6x-2 - \frac{(x-1)}{2}$ $(x+4)$
 $\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \neq 0$ $\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \mid \frac{x-1}{2x^2+3x^2-11x+3} = x^2+6x-2 - \frac{(x-1)}{2}$ $\frac{x-1}{2}$

$\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \mid \frac{x-1}{2x^2+3x^2-11x+3} = x^2+6x-2 - \frac{(x-1)}{2}$ $D_{(f)} = R - \left[\frac{1}{2}, 0, 1, 3 \right]$ $\frac{(x-1)}{2}$

ب) $\frac{x+3}{2x^2+3x^2-11x+3} \neq 0$ $\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \mid \frac{x+1}{2x^2+3x^2-11x+3} = \frac{(x+1)(2x^2+3x^2-11x+3)}{(x+1)(2x^2+3x^2-11x+3)}$ $\frac{(x+1)}{2}$
 $\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \neq 0$ $\frac{2x^2+3x^2-11x+3}{2x^2+3x^2-11x+3} \mid \frac{x+1}{2x^2+3x^2-11x+3} = \frac{(x+1)(2x^2+3x^2-11x+3)}{(x+1)(2x^2+3x^2-11x+3)}$ $\frac{(x+1)}{2}$

الف) $\frac{x+3}{x^2-2x^2+2x-1} \neq 0$ $\frac{x^2-2x^2+2x-1}{x^2-2x^2+2x-1} \mid \frac{x-1}{x^2-2x^2+2x-1} = \frac{(x-1)(x^2-2x^2+2x-1)}{(x-1)(x^2-2x^2+2x-1)}$ $\frac{(x-1)}{2}$
 $\frac{x^2-2x^2+2x-1}{x^2-2x^2+2x-1} \neq 0$ $\frac{x^2-2x^2+2x-1}{x^2-2x^2+2x-1} \mid \frac{x-1}{x^2-2x^2+2x-1} = \frac{(x-1)(x^2-2x^2+2x-1)}{(x-1)(x^2-2x^2+2x-1)}$ $\frac{(x-1)}{2}$

$\frac{x+3}{x^2-2x^2+2x-1} \neq 0$ $\frac{x^2-2x^2+2x-1}{x^2-2x^2+2x-1} \mid \frac{x-1}{x^2-2x^2+2x-1} = \frac{(x-1)(x^2-2x^2+2x-1)}{(x-1)(x^2-2x^2+2x-1)}$ $\frac{(x-1)}{2}$
 $\frac{x+3}{x^2-2x^2+2x-1} \neq 0$ $\frac{x^2-2x^2+2x-1}{x^2-2x^2+2x-1} \mid \frac{x-1}{x^2-2x^2+2x-1} = \frac{(x-1)(x^2-2x^2+2x-1)}{(x-1)(x^2-2x^2+2x-1)}$ $\frac{(x-1)}{2}$

$\frac{x+3}{x^2-2x^2+2x-1} \neq 0$ $\frac{x^2-2x^2+2x-1}{x^2-2x^2+2x-1} \mid \frac{x-1}{x^2-2x^2+2x-1} = \frac{(x-1)(x^2-2x^2+2x-1)}{(x-1)(x^2-2x^2+2x-1)}$ $\frac{(x-1)}{2}$

$x > 1 \rightarrow x^2 - \Delta x + \Delta - 2x + \Delta = 0 \Rightarrow x^2 - 7x + 1 = 0 \Rightarrow \frac{(x-6)(x-1)}{x=\Delta} \quad x=2$

$x < 1 \rightarrow x^2 + \Delta x - \Delta - 2x + \Delta = 0 \Rightarrow x^2 + 3x = 0 \Rightarrow x(x+3) = 0 \Rightarrow x=0 \quad x=-3$

الف) $\sqrt{-x} - 2 \Rightarrow [-x] - 2 \geq 0 \Rightarrow [-x] \geq 2 \Rightarrow D_{(f)} \in (-\infty, -2]$

ب) $\frac{\Delta x^2 + 4}{[x] - 2[x] - 2} \neq 0$ $([x] - 2)([x] + 1) = [x] = 2 \quad [x] = -1$
 $\frac{\Delta x^2 + 4}{[x] - 2[x] - 2} \neq 0$ $([x] - 2)([x] + 1) = [x] = 2 \quad [x] = -1$

الف) $\left[\left[x - \frac{1}{2} \right] + \left[x + \frac{1}{2} \right] \right] \geq 0 \quad D = \left\{ \frac{1}{2}, 1, 3 \right\}$ $\frac{1}{2}$
 $\left[\left[x - \frac{1}{2} \right] + \left[x + \frac{1}{2} \right] \right] \geq 0$ $D = \left\{ \frac{1}{2}, 1, 3 \right\}$

ب) $\left[\left[x - \frac{1}{2} \right] + \left[\frac{1}{2} - x \right] \right] \geq 0 \quad D_{(f)} = \left\{ \frac{1}{2}, 1, 3 \right\}$ $\frac{1}{2}$
 $\left[\left[x - \frac{1}{2} \right] + \left[\frac{1}{2} - x \right] \right] \geq 0$ $D_{(f)} = \left\{ \frac{1}{2}, 1, 3 \right\}$

$$\frac{\cos x}{\sin x}$$

مرتبتي نویسی $\frac{k\pi}{4}$

الف) $y = \frac{\cot x + 1}{\tan x + 1} \Rightarrow \cot x = 1 \Rightarrow [2k\pi, 2k\pi + \pi]$
 $\tan x + 1 \neq 0 \Rightarrow \tan x \neq -1 \Rightarrow \tan x = 1 \Rightarrow [2k\pi + \frac{\pi}{4}, 2k\pi + \frac{5\pi}{4}]$

$D_{(f)} = \{ \dots \}$
 $\{ \dots \}$
 $k\pi + \frac{\pi}{4} \leq k\pi - \frac{\pi}{4}$

ب) $\sqrt{1 - \sin^2 x} \Rightarrow 1 - \sin^2 x \geq 0 \Rightarrow \sin^2 x \leq 1 \Rightarrow \sin^2 x \leq \frac{1}{4} \Rightarrow \frac{1}{2} \leq \sin x \leq \frac{1}{2}$
 $D_{(f)} = [k\pi - \frac{\pi}{4}, k\pi + \frac{\pi}{4}]$

الف) $\sqrt{\sin x} \Rightarrow \sin x \geq 0 \Rightarrow \sin x \geq 1 \Rightarrow \sin x \geq \frac{1}{2} \Rightarrow \frac{1}{2} \leq \sin x \leq 1$
 $D_{(f)} = [2k\pi + \frac{\pi}{6}, 2k\pi + \frac{5\pi}{6}]$

ب) $\sqrt{1 - \cos x} \Rightarrow 1 - \cos x \geq 0 \Rightarrow \cos x \leq 1 \Rightarrow \cos x \leq \frac{1}{2} \Rightarrow -1 \leq \cos x \leq \frac{1}{2}$
 $D_{(f)} = [2k\pi + \frac{\pi}{3}, 2k\pi + \frac{4\pi}{3}]$

الف) $y = \arcsin(x^2 + 2x + 1) \Rightarrow -1 \leq x^2 + 2x + 1 \leq 1$
 $\begin{cases} x^2 + 2x + 1 \leq 1 \Rightarrow x^2 + 2x \leq 0 \Rightarrow x(x+2) = 0 \Rightarrow x = 0, x = -2 \\ x^2 + 2x + 1 \geq -1 \Rightarrow x^2 + 2x + 2 \geq 0 \Rightarrow (x+1)^2 + 1 \geq 0 \Rightarrow x = -1 \end{cases}$
 $D_{(f)} = [-2, 0] \cup [-1, 0]$
 $\cos y = \sqrt{0.5x} \Rightarrow 0 \leq 0.5x \Rightarrow x \leq 0 \Rightarrow x \leq \frac{0}{\frac{1}{2}} \Rightarrow x \leq 0$
 $D_{(f)} = [0, \frac{0}{\frac{1}{2}}]$

الف) $y = \log_2(1 - \log_2 x) \Rightarrow 1 - \log_2 x > 0 \Rightarrow \log_2 x < 1 \Rightarrow x < 2$
 $D_{(f)} = (0, 2)$
 $\log_2(1 - \log_2 \frac{x}{2}) \Rightarrow 1 - \log_2 \frac{x}{2} > 0 \Rightarrow \log_2 \frac{x}{2} < 1 \Rightarrow \frac{x}{2} < 2 \Rightarrow x < 4$
 $D_{(f)} = (\frac{1}{2}, 4)$

الف) $\sqrt{x - x^2} - 1 \Rightarrow x - x^2 \geq 1 \Rightarrow x - x^2 \geq 1 \Rightarrow x^2 - x + 1 \leq 0$
 $D_{(f)} = [1, 3]$
 $x - x^2 \geq 1 \Rightarrow x^2 - x + 1 \leq 0 \Rightarrow (x-1)(x-1) \leq 0 \Rightarrow x = 1$
 $(\frac{x+0}{x+0})! \in W \Rightarrow \frac{-fw + a}{fw - r} \Rightarrow D_{(f)} = \{x/x = \frac{-fk + a}{rk - r}, k \in W\}$