

نام و نام خانوادگی پاسخنانه تشریحی تکلیف شماره ۳ کلاس نام و نام خانوادگی
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الف) $y = \frac{x+3}{2x^3+3x^2-8x+3} \Rightarrow 2x^3+3x^2-8x+3=0 \xrightarrow{\div x-1} (x-1)(2x^2+5x-3)=0$
 $x=1 \quad x=-3, \frac{1}{2} \rightarrow D_f = \mathbb{R} - \{1, -3, \frac{1}{2}\}$

ب) $y = \frac{x+3}{2x^3+9x^2+10x+3} \Rightarrow 2x^3+9x^2+10x+3=0 \xrightarrow{\div x+1} (x+1)(2x^2+7x+3)=0$
 $x=-1 \quad x=-\frac{1}{2}, -3 \rightarrow D_f = \mathbb{R} - \{-\frac{1}{2}, -3, -1\}$

الف) $y = \frac{x+3}{x^3-2x^2+2x-1} \Rightarrow x^3-2x^2+2x-1=0 \xrightarrow{\div x-1} (x-1)(x^2-x+1)=0$
 $x=1 \quad \text{منفرجه} \rightarrow D_f = \mathbb{R} - \{1\}$

ب) $y = \sqrt{\frac{x+3}{x^3-2x^2+2x-1}} \Rightarrow \frac{x+3}{(x-1)(x^2-x+1)} \geq 0 \rightarrow \frac{x+3}{x-1} \geq 0 \rightarrow \frac{-3}{+d - \phi +} \rightarrow D_f = (-\infty, -3] \cup (1, +\infty)$

$y = \frac{2}{x^2-5|x-1|-2n+5} \rightarrow x^2-5|x-1|-2n+5=0$
 $x \geq 1 \rightarrow x^2-5x+5-2n+5=0 \rightarrow x^2-5x+10-2n=0 \rightarrow x=5, 2$
 $x < 1 \rightarrow x^2+5x-5-2n+5=0 \rightarrow x^2+5x-2n=0 \rightarrow x(n+3)=0 \rightarrow x=0, -3$
 $D_f = \mathbb{R} - \{2, 5, 0, -3\}$

الف) $y = \frac{x+3}{|2n+1|-|x+3|} \Rightarrow |2n+1|-|x+3|=0 \rightarrow |2n+1|=|x+3| \xrightarrow{\text{مربع}} (2n+1)^2=(x+3)^2 \rightarrow 4n^2+4n+1=x^2+6x+9 \rightarrow$
 $3n^2-2n-8=0 \rightarrow x=2, -\frac{8}{3} \Rightarrow D_f = \mathbb{R} - \{2, -\frac{8}{3}\}$

ب) $y = \sqrt{|2n+1|-|x+3|} \rightarrow |2n+1|-|x+3| \geq 0 \rightarrow 4n^2+4n+1 \geq x^2+6x+9 \rightarrow 3n^2-2n-8 \geq 0 \rightarrow \frac{-\frac{8}{3}}{+d - \phi +} \rightarrow D_f = (-\infty, -\frac{8}{3}] \cup [2, +\infty)$

الف) $y = \log_v^{1-\log_v^x} \rightarrow \log_v^x \rightarrow x > 0$
 $1-\log_v^x > 0 \rightarrow \log_v^x < 1 \rightarrow x < v \rightarrow D_f = (0, v)$

ب) $y = \log_v^{1-\log_v^{\frac{x}{v}}}$
 $1-\log_v^{\frac{x}{v}} > 0 \rightarrow \log_v^{\frac{x}{v}} < 1 \rightarrow \frac{x}{v} < v \rightarrow x < v^2 \rightarrow D_f = (\frac{1}{v}, +\infty)$

