

الف) $\frac{x+c}{x^2+2x+1} = \frac{x+c}{(x+1)^2} = \frac{x+c}{(x+1)(x+1)} \Rightarrow D_f = R - \{1, -1\}$

ب) $\frac{x+c}{x^2+9x+14} = \frac{x+c}{(x+2)(x+7)} = \frac{x+c}{(x+2)(x+7)} \Rightarrow D_f = R - \{-\frac{1}{2}, -7\}$

الف) $\frac{x+c}{x^2-4x+4} = \frac{x+c}{(x-2)^2} = \frac{x+c}{(x-2)(x-2)} \Rightarrow D_f = R - \{2\}$
 که هیچ مخرج مشترک ندارد
 که بدون رنج

ب) $\frac{x+c}{x^2-2x+1} = \frac{x+c}{(x-1)^2} = \frac{x+c}{(x-1)(x-1)} \Rightarrow D_f = (1, +\infty) \cup (-\infty, 1)$
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if $x \neq 1 \Rightarrow \frac{x^2-2x+1}{x^2-2x+1} = 1 \neq 0$
 if $x = 1 \Rightarrow \frac{x^2-2x+1}{x^2-2x+1} = 0$
 if $x \neq 1 \Rightarrow \frac{x^2-2x+1}{x^2-2x+1} = 1 \neq 0$
 if $x = 1 \Rightarrow \frac{x^2-2x+1}{x^2-2x+1} = 0$
 $D_f = R - \{1\}$

الف) $|2x+1| - |x+c| \neq 0 \Rightarrow |2x+1| \neq |x+c| \Rightarrow 2x+1 \neq x+c \Rightarrow x \neq c-1$
 $(x+\frac{1}{2})(x-1) \neq 0$
 $D_f = R - \{-\frac{1}{2}, 1\}$

ب) $|2x+1| \geq |x+c| \Rightarrow (x+\frac{1}{2})(x-1) \geq 0 \Rightarrow \frac{x}{x-1} \geq 0 \Rightarrow D_f = [1, +\infty) \cup (-\infty, -\frac{1}{2}]$

الف) $x^2 \geq 0 \Rightarrow x \geq 0$ و $1-x^2 \geq 0 \Rightarrow x \leq 1$ و $x > 0 \Rightarrow D_f = (0, 1]$

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$$I \Rightarrow x-1 > 0 \Rightarrow x > \frac{1}{x}$$

$$II \Rightarrow 1.20^{(x-1)} > 0$$

$$x-1 > 1$$

$$x > 2$$

$$D_2(x+c)$$

$$III \Rightarrow \log_{\frac{1}{x}} \frac{1}{x} > 0 \Rightarrow 1 \geq \log_{\frac{1}{x}} (x-1) \Rightarrow 0 \leq x-1$$

$$الز) \cos x > 0$$

$$x \cos x > 1 \Rightarrow \cos x > \frac{1}{x}$$

$$x > \frac{1}{\cos x}$$

$$\frac{x-1}{x+1} > 0 \Rightarrow x > 1 \vee x < -1$$

$$\log \frac{x-1}{x+1} > 0 \Rightarrow \frac{x-1-x-1}{x+1} > 0$$

$$\frac{-2}{x+1} > 0 \Rightarrow x < -1$$

$$(x+5)x^2 + a(x+b) > 0$$

$$\text{if } x < 0 \Rightarrow 9x^2 + 11x + c + b = 0 \Rightarrow b = -x^2(9x+11+d)$$

$$\text{if } x > 0 \Rightarrow b \geq 0 \quad b = -x^2(11) > 0$$

$$-11d > 11$$

$$d \geq \frac{1}{x}$$

$$\text{if } x < 2 \Rightarrow 9x^2 + 11x + c + b$$

$$9x^2 + 11x - 11x - 9x - 10 > 0 \Rightarrow x > -\frac{10}{9}$$

$$9x^2 + x + 7 - m^2 \Rightarrow 49/36 + \dots > 0$$

$$r = r(r-m^2) \sqrt{0}$$

$$1 - (1) = 2 \quad (r)$$

$$r = -1 + r m^2 \quad \sqrt{0}$$

$$r m^2 - r \sqrt{0} \quad r(m-1)(m+1) \sqrt{0}$$

$$r(m^2-1) \sqrt{0}$$

$$\frac{-1}{4} - \frac{1}{4} \Rightarrow m_{\max}^2, m_{\min}^2$$

$$r = x^2 > 0$$

$$(x-1)(x+1) > 0$$

$$\frac{-1}{0} + \frac{1}{0} =$$

$$[x] + [-x] + 1 \neq 0$$

$$[x] + [-x] \neq -1 \Rightarrow x \neq 0$$

تفاوت اعداد صحیح کبر و کمر