

$x^2 >$ ضرب

$$\frac{x_1 \quad x_2}{+ \quad - \quad - \quad +} \quad \frac{1 \quad 2}{+ \quad - \quad - \quad +}$$

$$a+b = f+g = V$$

$$y = a(x^2 - 5x + 6) = x^2 - 5x + 6 \Rightarrow a = f \\ b = g$$

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$$(-1 - 2n)^2 = 0$$

$K \in \mathbb{N} \Rightarrow K > 0$
 $K - 2 < 0 \Rightarrow K = 1$
 $K < 2$ ضرب: K منفی است
 کسر از K منفی است

$$\begin{aligned} -x + m - 1 \\ -f + m - 1 = 0 \\ m = 5 \end{aligned}$$

$$\begin{aligned} -1 - 2n \\ n = -\frac{1}{2} \end{aligned}$$

$$\frac{5}{-1} + 1 = -1 \cdot 5 + 1 = -4$$

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$$-\frac{1}{4}x^2 + 2x + 6 > \frac{1}{4}$$

$$-\frac{1}{4}x^2 + 2x + \frac{5}{4} > 0$$

$$x^2 - 8x - 5 < 0$$

$$(x-5)(x+1) < 0$$

$$\frac{-1 \quad 5}{+ \quad - \quad - \quad +}$$

$$(-1, 5)$$

$$5 - (-1) = 6$$

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$$y = x^3 - 2x^2 - x + 3 = (x-1)(x+1)(x-3) < 0$$

$$(x-1)(x+1)(x-3) = -3$$

$$\frac{x^3 - 2x^2 - x + 3}{x^2 - 2x - 3} \cdot \frac{x-1}{x-1}$$

$$\frac{-1 \quad 1 \quad 3}{- \quad + \quad - \quad +}$$

$$x > 0 \Rightarrow \frac{3+1}{2} = 2$$

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$$\begin{aligned} a-1 < 0 \\ a < 1 \\ (-\infty, 1) \end{aligned}$$

$$a < 0 \Rightarrow (a-1)^2 - f(a-1) < 0 \Rightarrow (a-5)(a-1) < 0$$

$$a^2 - 6a + 5 < 0$$

$$\frac{1 \quad 5}{+ \quad - \quad - \quad +}$$

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$$(-\infty, 1) \cap (1, 5) = \emptyset$$

$$a \in \emptyset$$

$$\frac{m(m(m^2+1))}{m-2} > 0$$

$$\frac{m^2(m^2+1)}{m-2} > 0$$

$m^2+1 \neq 0$
 $m^2+1 = 0$
 $m = \pm i$

$$\frac{0 \quad 2}{-\quad -\quad +}$$

$m \in (2, +\infty)$

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$$\frac{(x-2)(x+2)(x-1)^2}{(x^2-x+1)(1-x)^2} \leq 0$$

$$\frac{-2 \quad 1 \quad 2 \quad 2}{+\quad -\quad -\quad +}$$

$[-2, 2] \cup [2, +\infty)$

$x^2-x+1 < 0$
 $0 < 0$
 $0 > 0$

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$$\frac{2x^2-2x}{x^2+5} < 2$$

$$\frac{2x^2-2x}{x^2+5} - 2 < 0$$

$$\frac{2x^2-2x-2x^2-10}{x^2+5} < 0$$

$$\frac{2x^2-2x-10}{x^2+5} < 0$$

$$\frac{(x-5)(x+2)}{x^2+5} < 0$$

$$\frac{-2 \quad 5}{+\quad -\quad +}$$

$(-2, 5)$

$5 - (-2) = 7$

$x^2-x+1 < 0$
 $0 < 0$
 $0 > 0$

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$$\frac{2x^2-5x}{x+1} < 0$$

$$\frac{x(2x-5)}{x+1} < 0$$

$$\frac{-1 \quad 0 \quad 5}{-\quad +\quad -\quad +}$$

$(-\infty, -1) \cup (0, \frac{5}{2})$

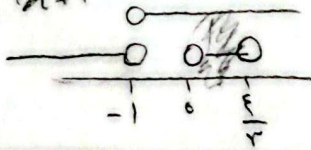
$$\frac{2x^2-5x}{x+1} > -1$$

$$\frac{2x^2-5x}{x+1} + 1 > 0$$

$$\frac{2x^2-3x+1}{x+1} > 0$$

$(-1, +\infty)$

$$\frac{-1}{-\quad +}$$



$(0, \frac{5}{2})$

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$$\frac{x^2-1}{x} - 2 \leq 0$$

$$\frac{x^2-1-2x}{x} \leq 0$$

$$\frac{(x-2)(x+2)}{x} \leq 0$$

$$\frac{-2 \quad 0 \quad 2}{-\quad +\quad -\quad +}$$

$(-\infty, -2] \cup (0, 2]$

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