

الف) $x \neq 0$ $x \neq 1$ $\frac{x^2 - 5x + 1 - x^2}{x(x-1)} \geq 0$ $\frac{-5x+1}{x(x-1)} \geq 0$

$R = \left[\frac{1}{5}, 1\right) \cup (-\infty, 0)$

ب) $x \neq -1$ $x \neq 0$ $x \neq 1$ $x \neq 2$

$\frac{x^2 + 4x - 1}{(x-1)(x+2)} \geq 0$ $x \neq \frac{0}{f}$ $R = \left\{-1, 0, 1, 2, \frac{5}{f}\right\}$

ج) $\left(\frac{1}{x}\right)^9 - 1 \geq 0$ $x = \frac{1}{x^9} - 1$ $x = \frac{0}{f}$

$R = \left(-\frac{1}{2}, \frac{0}{f}\right) = D_f$

د) $x \neq 0$

$x^2 - x - 2 > 0$ $(x-2)(x+1) > 0$ $R = (-1, 2)$

$x^2 - 1 > 0$ $x \geq 1$ $x \leq -1$

$\sqrt{x^2 - 1} + 1 \neq 0$

$D_f = R = (-1, 2)$

$x^2 + ax - x^2 \geq 0$

$a(x+b)(x-b) = 0 + ax - x^2$ $a = -1$ $b = 1$ $a+b = 1$

$5x + 6 - x \geq 0$ $x \geq -3$ $x < 1$

$3x - 2 - x \geq 0$ $x \geq 1$ $x \geq 1$

$D_f = [1, 1) \cup [-3, 1)$

$$\cancel{r_2} \cancel{f_2} \cancel{a_2} \quad \cancel{r_2 x + r_2 a_2} \quad \cancel{f_2}$$

$$r_2 a - f_2 r_2 a \neq V$$

$$\omega a = -11$$

$$a = \frac{-11}{\omega}$$

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$$\sqrt{r-\sqrt{c}} + \frac{1}{\sqrt{r-\sqrt{c}}} + r + \sqrt{r+\sqrt{c}} + \frac{1}{\sqrt{r+\sqrt{c}}} + r =$$

$$r \rightarrow \frac{r-\sqrt{c} + r+\sqrt{c}}{\sqrt{r-\sqrt{c}} \times \sqrt{r-\sqrt{c}}} = \frac{2r}{1} = 2r$$

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$$m(f_n - 1)$$

8

$$r f(0) = r_{m-1}$$

$$f(0) = r$$

$$\cancel{r f(0)} = \cancel{r f(0)}$$

$$f(0) + r f(0) = r + r_{m-1}$$

$$r f(0) + m = r_{m-1}$$

$$\cancel{r f(0)} = m = r_0$$

9

$$r f(-1) = \frac{c + 1r + c}{-1} = -11 \quad f(-1) = 9$$

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