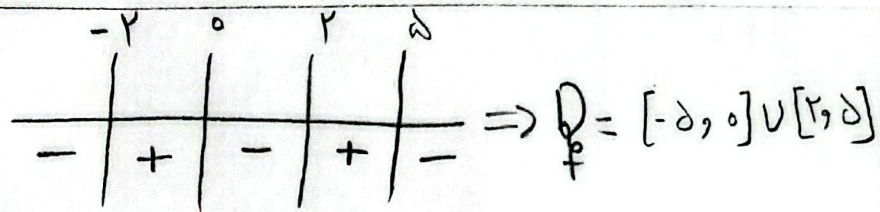


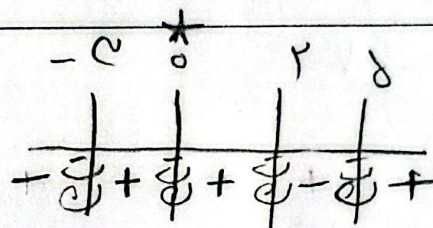
نام و نام خانوادگی محمد رضا پاسخنامه تشریحی تکلیف شماره ... V ... کلاس ... A ...

$$x f(x) \geq 0$$



1

$$-\frac{x}{f(x)} \geq 0, f(x) \neq 0$$



$$D_f = (-\infty, -2) \cup (0, 2) \cup (5, +\infty) \Rightarrow \text{بر سامه و صغیر صغیر}$$

2

$$f(2) - 2f(2) = 2 - 4 + 2 = 0$$

$$-f(2) = 2 \Rightarrow f(2) = -2$$

$$f(-2) - 2f(2) = 2 + 4 + 2 = 8$$

$$f(-2) + 2 = 10 \Rightarrow f(-2) = 8$$

3

$$f(5-2) + f(5) = f(2) + f(5-2) = 2 + 5-2 = 5$$

4

$$f(n-1) = a(n-1)^2 - b(n-1) + 2$$

$$f(n-1) - f(n) = a(n^2 - 2n + 1) - b(n-1) + 2 - (an^2 - bn + 2)$$

$$f(n-1) - f(n) = -2an + a + b = 4n + 2$$

$$-2a = 4 \Rightarrow a = -2 \Rightarrow b = 6 \Rightarrow a - b = -8$$

5

$$\frac{r(1) + \omega}{(-1)^r} = \textcircled{V}$$

6

$$\frac{r^2 - 1}{v} = \frac{r-1}{v}$$

7

$$\frac{f(1) - f(r)}{r} = \frac{4 - 4}{2} = \textcircled{0}$$

8

$$f(n) = \frac{(n+r)^r + \omega}{(n+r)^r + 1} \Rightarrow f(f(\sqrt{n}-r)) = f\left(\frac{\sqrt{n}^r + \omega}{\sqrt{n}^r + 1}\right)$$

9

$$f(r) = \frac{r^r + 1 + \theta}{r^r + 1 + \theta} = \frac{r-1}{1+r}$$

$$f(\sqrt{n}) = n + \frac{1}{n} \Rightarrow (f(\sqrt{n}))^r = n^r + \frac{1}{n^r} + r$$

$$(f(\sqrt{n}))^r - f(n) = n^r + \frac{1}{n^r} + r - n^r - \frac{1}{n^r} = \boxed{r}$$

10