

نام و نام خانوادگی: (نام و نام خانوادگی) پاسنامه تشریحی تکلیف شماره کلاس (کلاس) 1912

$[-2, -5] \rightarrow x$ خ مندی است
 $[-5, 0] \rightarrow$ ص مندی است
 $(0, 2) \rightarrow x$ ص مندی است
 $[2, 5] \rightarrow$ ص مندی است

$D_f = [-5, 0] \cup [2, 5]$

$u f(u) > 0$

(2) ✓

$(-2, 0) \rightarrow + \sim \frac{-u}{f(u)} > 0$
 $(0, 2) \rightarrow + \sim \frac{-u}{f(u)} > 0$

1, 5 ✓

$f(u) \neq 0, \frac{-u}{f(u)} > 0$
($u = 0, 2, -3$)

حالت اول: $f(u) < 0, u > 0$
حالت دوم: $f(u) > 0, u < 0$

$-4 \quad -3 \quad 2 \quad 5$
 $\frac{-4}{-3} \quad \frac{-3}{2} \quad \frac{2}{5}$
 $f = (-2, 0) \cup (0, 2) \rightarrow -2, -1, 1$

$f(u) - 2f(v) = u^2 - 2u + 2$
 $u = 2 \rightarrow f(v) - 2f(v) = 2 - 4 + 2$
 $-f(v) = +2$
 $f(v) = -2$

$u = -2 \rightarrow f(v) - 2f(v) = 2 + 4 + 2$
 $f(-2) + 2 = 10$
 $f(-2) = 10$

(2) ✓

$f(f(u)) + f(f(v)) \rightarrow f(v) + f(u) = v + u = 9$
 $u = 2 \rightarrow f(v) = 7$
 $v = 7 \rightarrow f(u) = 2$

(2) ✓

$f(u-1) = a(u-1)^2 - b(u-1) + c = a(u^2 + 1 - 2u) - bu + b + c$
 $au^2 + a - 2au - bu + b + c - f(u) =$
 $- au^2 + a - 2au - bu + b + c - au^2 + bu - c = a + b - 2a$

$a + b - 2a = 4u + 2$
 $4 = -2a \rightarrow a = -2$
 $a + b = 2 \rightarrow b = 4$

$a - b = -2 - 4 = -6$
 $a - b = -6 - (-1) = -5$

(2) ✓

$$f(r) = 1$$

$$f(-1) = \omega$$

$$f(r) = -1$$

$$\frac{r f(r) + f(-1)}{f'(r)} = \frac{r + \omega}{\cancel{(-1+r)}} = \boxed{V}$$

Ⓟ ✓

$$\left. \begin{aligned} f(r) &= 13 \\ f(-r) &= 2 \\ f(r) &= V \end{aligned} \right\}$$

$$\frac{r f(r) - r f(-r)}{f(r)} = \frac{r \times 13 - 1}{V} = \frac{r9 - 1}{V} = r1/V$$

Ⓟ ✓

$$\textcircled{1} \rightarrow f(r) = 1 \rightarrow f(1) = 4$$

$$\textcircled{2} \rightarrow f(r) = 2 \rightarrow f(r) = 4$$

$$\textcircled{3} \rightarrow f(1) = 4$$

$$\frac{\overset{\textcircled{1}}{f(f(r))} - \overset{\textcircled{2}}{f(f(r))}}{\underset{\textcircled{3}}{f(1) - 2}}$$

$$\Rightarrow \frac{4 - 4}{2} = 0$$

Ⓟ ✓

$$f(f(\sqrt{r-1})) = ?$$

$$f(\sqrt{r-1}) = \frac{\overset{r+\varepsilon-\varepsilon\sqrt{r}}{(\sqrt{r-1})^2} + \overset{\varepsilon\sqrt{r}-r}{\varepsilon(\sqrt{r-1})} + 1}{\underset{-1}{(\sqrt{r-1})^2 + 9(\sqrt{r-1}) + \omega}} = \frac{-1 + 9}{-1 + \omega} = \frac{1}{\varepsilon} = r$$

$$f(r) = \frac{\varepsilon + 1 + 9}{\varepsilon + 1 + \omega} = \frac{r1}{V}$$

Ⓟ ✓

$$(f(\sqrt{a}))^r - f(a) = ?$$

$$\left(\frac{a+1}{a}\right)^r - f(a)$$

$$a^r + \frac{1}{a^r} - \left(a^r + \frac{1}{a^r}\right) = \textcircled{r}$$

Ⓟ ✓