

17.0

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۲ ... کلاس ۱۲

$$f(x) \Rightarrow x^2 + x + 1 + 9x^2 + 1 - 9x + mx^2 + h x + m h \Rightarrow m = -10$$

$$f(x) \Rightarrow 1 + (-10) = -9 \Rightarrow g(x) \Rightarrow (x_0, m) (x_1, m+1) \dots (x_{n-1}, m-1)$$

$$(-96p+k) \Rightarrow k=10 \Rightarrow m+h+p+k \Rightarrow -10+5-11+10 \Rightarrow -6$$

الف) $\sqrt{\frac{x-2}{x^2+2x-1}}$ $\rightarrow x^2+2x-1 = (x+1)^2 - 2$ $\rightarrow x = -1 \pm \sqrt{2}$ $\rightarrow x = -1 + \sqrt{2}$ $\rightarrow x = -1 - \sqrt{2}$

ب) $\frac{2x^2+1}{x^2-x} \Rightarrow x^2-x \neq 0 \Rightarrow x \neq 0, 1 \Rightarrow f = 2[-x] \Rightarrow 2 = [-x] \Rightarrow x = -2$

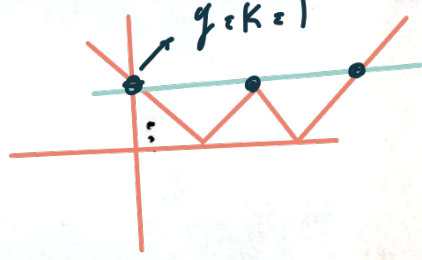
$-3 < x \leq 5 \Rightarrow Df \in (-3, 5]$

الف) $f(x) = \frac{\sqrt{x(x^2-1)}}{\sqrt{x+2}}$ $\Rightarrow x(x^2-1) \geq 0 \Rightarrow x \in (-1, 0] \cup [1, +\infty)$

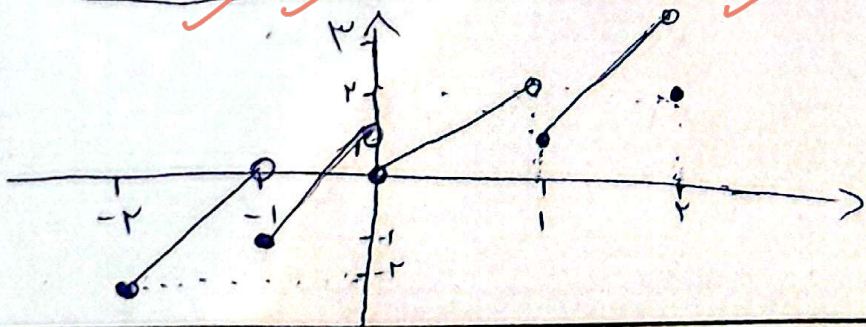
ب) $\frac{\sqrt{|x-1|-x^2}}{|x|-1} \Rightarrow |x-1|-x^2 \geq 0 \Rightarrow x \in [-1, 1]$

ج) $|x|-1 \neq 0 \Rightarrow x \neq \pm 1 \Rightarrow Df \in [-1, 1] - \{-1, 1\}$

$x \geq 3 \rightarrow x-3-k=0 \Rightarrow x=3+k \Rightarrow k \in [0, +\infty)$ $|x| > 3 \Rightarrow -x+3+k=0 \Rightarrow x+k=3$



$|x+2| \leq 2 \Rightarrow -4 \leq x \leq 0$ $|x+1| \leq 2 \Rightarrow -3 \leq x \leq 1$ $|x| \leq 1 \Rightarrow -1 \leq x \leq 1$ $|x-1| \leq 2 \Rightarrow -1 \leq x \leq 3$ $|x-2| \leq 2 \Rightarrow 0 \leq x \leq 4$



$$\frac{x^2 - 4x + 3}{x + a} + b = \begin{cases} \text{if } x + a = x - 1 \Rightarrow a = -1 \Rightarrow 2x - 3 + b = 2x \Rightarrow b = 3 & (1) \\ \text{if } x + a = x - 3 \Rightarrow a = -3 \Rightarrow x - 4 + b = 2x \Rightarrow b = 1 & (2) \end{cases}$$

$$(1) \Rightarrow \frac{a-b}{a} = \frac{-1-3}{-1-3} = \frac{-4}{-4} = 1 \Rightarrow a-b = -3-1 = -4 \Rightarrow$$

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

منقول این نیست نه مقایسه را جمع کنید

$$\frac{x^3 + 2x^2 - x - 2}{(x-1)(x+1)} = \frac{(x+2)(x-1)(x+1)}{(x-1)(x+1)} \Rightarrow x+2 = \frac{c}{x-1} \Rightarrow c = 2 \Rightarrow$$

$$\frac{ax+2}{x+b} = x+2 = \frac{a+2}{1+b} = 2 \Rightarrow 2+2b = a+2 \Rightarrow a=2b+1 \quad x=-1 \Rightarrow \frac{-a+2}{-1+b} = 1$$

$$-1+b = -a+2 \Rightarrow b = -a+3 \Rightarrow 2(-a+3) = 2a+4+1 = a \Rightarrow 4a = 10 \Rightarrow a = \frac{5}{2}, \omega$$

$$b = -2\omega + 3 \Rightarrow b = 0, \omega = \frac{3}{2}$$

$$g(x) = \sqrt{6-4+3k} \Rightarrow b=3, k=1 \Rightarrow a=\frac{5}{2}$$

$$2k-2-3k \Rightarrow -k-2=k \Rightarrow k=-1$$

$$3a - \frac{b}{k} - k \Rightarrow 3(\frac{5}{2}) - \frac{3}{-1} - 1 = \frac{15}{2} + 3 - 1 = \frac{17}{2}$$

$$g(x) = \sqrt{2x+2} = f \circ g \in [-1, +\infty) / D_f \cap D_g = [1, +\infty) / D_f \in (-\infty, 6+V] \Rightarrow m=V$$

$$x=2 \Rightarrow \sqrt{1} = g \circ f \Rightarrow 2+h \Rightarrow 2+h-2\sqrt{2} = 4\sqrt{2} \Rightarrow \sqrt{2}-2=h$$

$$m+h \Rightarrow V_1 + (\sqrt{2}-2) = \sqrt{2} + \omega$$

$$y = (-1)^x (x - [x]) = \frac{1}{2} \Rightarrow x - [x] = \frac{1}{2} \Rightarrow \begin{cases} x=2 \\ 1 \leq x < 2 \\ -2 \leq x < -1 \\ -1 \leq x < 0 \end{cases}$$

