نام و نام خانوادگی ...... پاسخنامه تشریحی تکلیف شماره ... کلاس ......

$gof(x) : \{x \in D_{f(x)} , D_{g(x)} \in R_f\}$ $(1,+\infty)$ $D_f \Rightarrow x-1>0 \Rightarrow x>1$ $\sqrt{-(x-2)^2} = g(x) \Rightarrow D_g = 2$ $\sqrt{\log_2 (x-1)}$ = ۲ $\Rightarrow x-1 = 16 \Rightarrow x = 17$ $\Rightarrow$ $D_{gof} = 17$	۱
$fog(x) = 2x^2 - 6x + 16 - 5 = 2x^2 - 6x + 11$ $gof(x) = 4x^2 + 25 - 10x - 6x + 12 + 8 = 4x^2 - 16x + 48$ $2x^2 - 6x + 11 = 4x^2 - 16x + 48 \Rightarrow 2x^2 - 10x + 37$ ~~$\Delta = 25 - 37$~~ [illegible]	۲
$2x = 9 : x = \frac{9}{2}$ $g(x) = 5(\frac{9^2}{4}) + 11 = \frac{5 \cdot 9^2}{4} + 11 = \frac{5x^2}{4} + 11$ $5x^2 + \frac{225}{4} - \frac{45}{2}x + 11 \Rightarrow 5x^2 - \frac{45x}{2} + \frac{281}{4}$ $\frac{4ac - b^2}{4a} = \frac{28[illegible] - \frac{[illegible]}{4}}{20} = \frac{1[illegible] - [illegible]}{2} = 56{,}[illegible]$	۳
$fog(x) = 3(x^2 - 6x + 1) - 1 - 3 \Rightarrow g(x) = x^2 - 6x + 1$ $gof(x) = 9x^2 + 16 - 24x - 18x + 24 + 1 = 9x^2 - 42x + 41$	۴
$-2\{ f - g = -x + 5 : -2f + 2g = 2x - 10$ $3f - 3g = 14$ $fog = 6x - 2 + 4 = 6x + 2$ $\Rightarrow f = 2x + 4$ ~~$g = 14$~~ $2x + 4 - x - 5 = g$ $x - 1 = g$	۵

$6x + 2 = 0 \Rightarrow 6x = -2$

$x = -\frac{1}{3}$ $\quad$ $a = -\frac{1}{3}$