Zadatak 24. Riješi nejednadžbu $(f \circ g)(x) > x^2 - 1$, pri čemu je $f(x) = 5^{1-x}$, $g(x) = \log_{0.2}|x-1|$.

Rješenje. $f(x) = 5^{1-x}$, $g(x) = \log_{0.2}|x-1|$

$$(f \circ g)(x) = 5^{1-\log_{0.2}|x-1|} = 5^{1+\log_5|x-1|} = 5^{\log_5 5|x-1|} = 5|x-1|$$

$$5|x-1| > x^2 - 1$$

(i)	$x < 1$	(ii)	$x \geqslant 1$
	$-5x + 5 > x^2 - 1$		$5x - 5 > x^2 - 1$
	$x^2 + 5x - 6 < 0$		$x^2 - 5x + 4 < 0$
	$(x+6)(x-1) < 0$		$(x-4)(x-1) < 0$
	$x \in \langle -6, 1\rangle$		$x \in \langle 1, 4\rangle$

$$\Longrightarrow x \in \langle -6, 1\rangle \cup \langle 1, 4\rangle$$