

Question 20817

Let $f(x) = |x - 5|$ and $g(x) = 1/x$ write the given function as a composition function using f and g .
 $H(x) = |(1/x) - 5|$.

Solution.

It is clear that $\frac{1}{x} = g(x)$. Let us consider the composition $f \circ g$. Then $f \circ g(x) = f(g(x)) = f(\frac{1}{x}) = |(\frac{1}{x}) - 5|$.
That is $H(x) = f \circ g(x)$.

Answer. $H(x) = f \circ g(x)$.