Answer on Question #57483 - Math - Calculus

Question

Find the simplest functions f and g for which

 $(f \circ g)(x) = \sin(x7+1).$

Solution

$$f = \sin(x), g = x^7 + 1$$

$$(f \circ g)(x) = f(g(x)) = \sin(g(x)) = \sin(x^7 + 1);$$

Answer: $f = \sin(x)$, $g = x^7 + 1$.