$$f(x) = x^3 + 1 \quad g(x) = 3x^2 \quad h(x) = x + 3$$

If fff(y) = 389017001, find gh(y)

To find y, apply the inverse function $f^{-1}(x)$ to 389,017,001

That is, "subtract 1 and cube root"

389017001 – 1 = 389017000   cube root of 389017000= 730

730 – 1 =729   cube root of 729 =9

9-1 = 8   cube root of 8 = 2

Hence y=2

h(2) = 2 + 3 =5

g(5) = 3 x 5^2 = **75**