

Problem 1. Find the domain of the function

$$f(x) = \frac{x}{\sqrt{16 - x^2}}.$$

Problem 2. Let $f(x) = \sqrt{x}$, $g(x) = x^2 + 1$.

Find $(f \circ g)(x)$, $(g \circ f)(x)$ and $g(x + h)$.