Operations on Functions - Worksheet

NAME: DATE:

1. If $f(x) = \sqrt{x}$ and $g(x) = x^2 - 1$, find (f + g)(x), (f - g)(x), (fg)(x), (f/g)(x) and (g/f)(x) along with their domains.

- 2. Find the indicated values where $f(x) = -3x^3 + 4$ and $g(x) = x^2$
 - (a) g(f(0))
 - (b) $f \circ g(1)$
 - (c) g(f(1)+2)
 - (d) f(2g(-1))
- 3. Find the rule and domain of the functions $f \circ f$ and $f \circ g$ when $g(x) = \frac{1}{x-1}$ and $f(x) = x^2$.