## Operations on Functions - Worksheet

NAME:
DATE:

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