

DATE: _____

1.4 Function Operation Practice

If $f(x) = x - 3$ and $g(x) = \sqrt{x}$, state the domain of $f(x)$ and $g(x)$. Then, find and state the domain of $(f \circ g)(x)$ and $(g \circ f)(x)$. Finally, find $(f \circ g)(9)$ and $(g \circ f)(15)$.

If $f(x) = 2x^2$ and $g(x) = x^2 - 4$, state the domain of $f(x)$ and $g(x)$. Then, find and state the domain of each:

$$(f + g)(x)$$

$$(f - g)(x)$$

$$(fg)(x)$$

$$(f/g)(x)$$

$$(f \circ g)(x)$$

$$(g \circ f)(x)$$