

Name: _____

Function operation & domain practice

In exercises 1 – 4, given function f and g , find: a.) $f + g$ b.) $f - g$ c.) $f \cdot g$ d.) $\frac{f}{g}$
and state the domain of each

1.) $f(x) = 2x + 1$
 $g(x) = 1 - x$

2.) $f(x) = 2x^2 - x$
 $g(x) = x^2 - 4$

3.) $f(x) = \frac{2x+3}{x-4}$

$g(x) = \frac{x-4}{3x+2}$

4.) $f(x) = \sqrt{x-1}$

$g(x) = 2x^2$

In exercise 5 – 8 for the given function f and g , find the composition functions: a.) $f \circ g$ b.) $g \circ f$ and **state the domain of each.**

5.) $f(x) = 2x + 1$

$$g(x) = x^2 - 3$$

6.) $f(x) = \frac{2}{x-3}$

$$g(x) = 2 + x$$

7.) $f(x) = \sqrt{2-x}$

$$g(x) = x^2 + 2$$

8.) $f(x) = x^3 + 4$

$$g(x) = (x-4)^{\frac{1}{3}}$$