Advanced Algebra

Unit 2: Family of Functions

Composition of Functions:

Assignment #13

For the following problems, find f(g(x)) and g(f(x))

1) $f(x) = x+1$ and $g(x) = 2x$

fog

gof

2) $f(x) = 2x+1$ and $g(x) = x-3$

fog

gof

3) $f(x) = x^2$ and $g(x) = x-1$

fog

gof

4) $f(x) = x^2-1$ and $g(x) = x+2$

fog

gof

5) $f(x) = x-3$ and $g(x) = x+3$

Fog

gof

6) $f(x) = -x^2 -1$ and $g(x) = x+5$

fog

gof

7) Find $f(x)$ and $g(x)$ such that $f(g(x)) = (x+1)^2$

What is $f(x)$?

What is $g(x)$?