

Tutoring HW 1

Section 1: Simplify each expression or solve for x :

1. Find $f(g(x))$

8. Find $f(g(x))$

2. Find $g(f(x))$

9. Find $g(f(x))$

3. Find $h(k(x))$

10. Find $h(k(x))$

4. Find $g(f(x))$

11. Find $g(f(x))$

5. Find $h(k(x))$

12. Find $h(k(x))$

6. Find $g(f(x))$

13. Find $g(f(x))$

7. Find $h(k(x))$

14. Find $h(k(x))$

Section 2:

Given the following functions $f(x) = x^2 + x$, $g(x) = 2 - 4x$, $h(x) = x^2 - 1$, $p(x) = x + 6$, $k(x) = 2x + 2$

15. Find $f(x) \cdot g(x)$

19. Find $g(x) \cdot f(x)$

16. Find $g(-x) + h(x^2)$

20. Find $p(x) + g(2x)$

17. Find $k(x) \cdot k(x)$

21. Find $h(x) \cdot p(x)$

Section 3:

23. Find $f(x)(g(x) + k(x))$

26. Find $f(k(x)) + p(h(x))$

24. Find $g(x)(f(x) + k(x))$

27. Find $f(f(x)) - k(k(x))$

25. Find $k(x)(f(x) + g(x))$

28. Find $h(x)f(x) + p(x)k(x)$