

Function Operations Homework

Perform the indicated operation.

$$f(x) = 2x + 6 \quad g(x) = x^2 - 16 \quad h(x) = x^2 + 2x \quad p(x) = \frac{2}{x}$$

1) $g(x) + h(x)$

2) $h(x) - f(x)$

3) $f(x) \cdot g(x)$

Given $f(x) = 5x^2 - 9x + 2$ $g(x) = x^2 + 3x - 8$ $h(x) = -2x^2 + 1$ and $k(x) = 4x - 3$

4. Find $4f(x) + 3g(x)$

5. Find $h(x) - f(x)$

6. Find $h(x) \cdot k(x)$

7. Find $h(3) + g(-4)$

8. Find $5f(x) + 7g(x)$

9. Find $f(x) \cdot 2k(x)$

10. Find $h(2) - f(-1)$

11. Find $3f(x) \cdot h(x)$

Given the functions $f(x) = 3x^2 + 5x - 8$ and $g(x) = 2x^2 + 4x - 9$

12. Find $f(x) + g(x)$

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

14. Find $f(2) + g(2)$

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

Use the following functions to find the given value:

$$f(x) = x + 2$$

$$g(x) = \frac{1}{2}x + 1$$

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

$$k(x) = 3 - x$$

16. $f(2) = \underline{\hspace{2cm}}$

17. $g(4) = \underline{\hspace{2cm}}$

18. $f(-6) = \underline{\hspace{2cm}}$

19. $k(5) = \underline{\hspace{2cm}}$

20. $h(2) = \underline{\hspace{2cm}}$

21. $g(6) = \underline{\hspace{2cm}}$

22. $h(-3) = \underline{\hspace{2cm}}$

23. $k(-4) = \underline{\hspace{2cm}}$

