

Practice with Evaluating Functions and Simplifying Expressions

Name: _____ Date: _____

Use the following functions to find the given value:

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

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

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

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

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

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

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

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

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

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

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

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

Simplify each expression.

9. $5x + 5 + 2x + 4$

10. $6x - 5 - 8x + 7$

11. $2(3x + 5) + 2x + 4$

12. $-7(y^2 + 7) + 2y(8y^2 + 1)$

13. $2x(x^3 + 11x^2 - 9x - 3)$

14. $-3x^2(2y - 4x) + 5x^2(1 - 8x)$
