

NAME _____ DATE _____

ALGEBRA II WORKSHEET ON EVALUATING FUNCTIONS

Complete all work on a separate sheet of paper.

Refer to the given functions for Examples 1-14.

$$f(x) = -x^2 + 5x - 2 \quad g(x) = \frac{3x+2}{x-5} \quad h(x) = \begin{cases} 3x-5, & x < 2 \\ 2^x - 1, & 2 \leq x \end{cases} \quad k(x) = 5 - x$$

1. Find $f(3)$.
2. Find $h(5)$.
3. Find $g(7)$.
4. Find $k(x^2 - 4)$.
5. Find $g(x+7)$.
6. Find $[f(-1)]^{h(2)}$.
7. Find $k(3) \cdot g(4)$.
8. Find $(g \circ f)(3)$.
9. Find $f(g(3))$.
10. Find $(h \circ h)(-2)$.
11. Find $g(x) - 2f(x)$.
12. Find $f(x) \cdot k(x)$.
13. Find $(k+f)(x)$.
14. Find $(k \circ f)(x)$.

15. Given the graph of $f(x)$, evaluate the following.

- a. $f(-2)$
- b. $f(0)$
- c. $f(2) - 3f(1)$
- d. $f(f(-2))$

