

Algebra 2 Unit #1 Worksheet #8
Function Notation and Evaluating Piecewise Functions

Let:

$$\begin{aligned} f(x) &= 2x - 5 \\ g(x) &= |7 - 3x| \\ h(x) &= x^2 - 3x + 4 \end{aligned} \quad r(x) = \begin{cases} x^2 & x \leq -3 \\ 5 & -3 < x \leq 4 \\ 2x + 3 & x > 4 \end{cases}$$

Evaluate the following using the functions given above:

1. $f(4)$
2. $g(-3)$
3. $h(2)$
4. $r(-5)$
5. $f(-8)$
6. $h(-5)$
7. $g(0)$
8. $r(-1)$
9. $h(-1)$
10. $r(5)$
11. $r(-1/4)$
12. $f(3/2)$

Evaluate the following using the functions given above. Write your final answer as an ordered pair.

13. $g(5)$
14. $f(-8)$
15. $r(-3)$
16. $h(-3)$
17. $g(7/3)$
18. $r(4)$

Write the following equations using function notation.

19. $y = 3x - 7$
20. $y = -3x^2 - 7x + 4$

Write the following ordered pairs using function notation.

21. $(3, 12)$
22. $(-50, -2000)$
23. $(-0.5, 1.326)$