

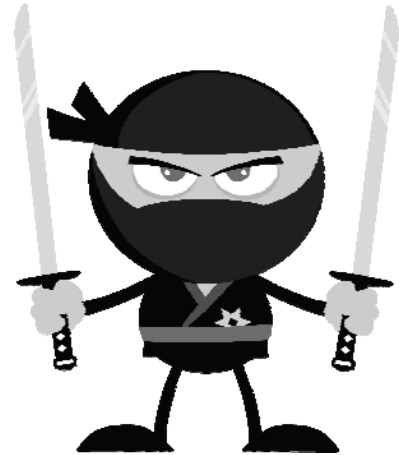
Name _____

Date _____

Evaluating Advanced Functions - Step-by-Step Lesson

Complete the table.

$f(x) = x^2 + 8$	
x	f(x)
5	
1	
4	



Explanation:

The first x -value in the table is 5. Evaluate $f(x) = x^2 + 8$ for $x = 5$.

$$\begin{aligned}
 f(x) &= x^2 + 8 \\
 &= (5)^2 + 8 && \text{Plug in } x = 5 \\
 &= 25 + 8 && \text{Square} \\
 &= 33 && \text{Add}
 \end{aligned}$$

When $x = 5$, $f(x) = 33$. Complete the first row of the table.

Next, evaluate $f(x) = x^2 + 8$ for $x = 1$.

$$\begin{aligned}
 f(x) &= x^2 + 8 \\
 &= (1)^2 + 8 && \text{Plug in } x = 1 \\
 &= 1 + 8 && \text{Square} \\
 &= 9 && \text{Add}
 \end{aligned}$$

When $x = 1$, $f(x) = 9$. Complete the second row of the table.

Complete the rest of the table the same way.

$f(x) = x^2 + 8$	
x	f(x)
5	33
1	9
4	24

