

Improper Linking of Concepts

1. It is impossible to set a function to zero.
2. Functions do not have solutions.
3. Graphs are neither true nor false.
4. An equation cannot be the empty set.
5. $f(x) = 0$ is not a zero of the function f .
6. A point does not solve an equation.

Nonsense

The following statements are complete nonsense and should not be used in mathematics discourse.

1. complete the equation
2. set the function equivalent to zero
3. the function is a line on the graph
4. the function $f(x) = 0$

General

1. A rule for a function must be a rule not just an expression.
2. $(-3, 5)$ is an ordered pair and therefore will be read as a point in the plane. It is acceptable to say that -3 and 5 are zeros of a function f . To say that the zeros of a function f are $(-3, 5)$ is incorrect (both mathematically and grammatically).
3. $x = \{2, 3\}$ does not mean $x = 2$ OR $x = 3$.
4. It is acceptable to say 3 is an x -intercept, it is acceptable to say $(0,3)$ is the x -intercept, it is acceptable to say the x -intercept is $x = 3$. However, it is unacceptable to say the x -intercept is $f(x) = 3$.
5. It is acceptable to refer to the set of natural numbers. It is acceptable to refer to the set \mathbf{N} . It is not acceptable to refer to the set of \mathbf{N} numbers.
6. The solution set of an equation may be the empty set but the equation cannot be the empty set.
7. $(x-4)(x-2)\left[\frac{x}{x-2} + \frac{1}{x-4}\right]$ is not $x+1$.