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## Algebra



## Across

1. a way of writing down very large or very small numbers easily
2. the equation of a straight line in the form $y=m x+b$ where $m$ is the slope of the line and $b$ is its $y$-intercept
3. the largest value a given function assumes on a specified set
4. an operation that associates each element of a given set, the domain and range
5. all the output values of a function
6. a relationship or expression involving one or more variables
7. of a number $x$ is another number, which when multiplied by itself a given number of times, equals $x$
8. the value of $y$ at the point where the line crosses the $y$ axis
9. between two sets is a collection of ordered pairs containing one object from each set
10. is the integer denoted 0 that, when used as a counting number, means that no objects are present
11. of a topology or topological space having the property that every subset is an open set
12. $y=a x^{\wedge} 2+b x+c$

## Down

3. of lines, planes, surfaces, or objects side by side and having the same distance continuously between them
4. a number on its own, or sometimes a letter such as a, b or c to stand for a fixed number
5. a corner or a point where lines meet
6. almost all rules and algorithms start with an input and end with an
7. all the input values of a function 10. a curve where any point is at an equal distance
8. a statement that the values of two mathematical expressions are equal
9. almost all rules and algorithms start with an $\qquad$ and end with an output
