WHAT IS AN ALGORITHM

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To make a computer do anything, you have to write a computer program. To write a computer program, you have to tell the computer, step by step, exactly what you want it to do. The computer then "executes" the program, following each step mechanically, to accomplish the end goal.

When you are telling a computer what to do, you also have to choose how it's going to do it. That's where computer algorithms come in. An algorithm is a step-by-step list of directions that need to be followed to solve a problem.

Algorithms are often used to describe how a computer might solve a problem. But there are algorithms in the real world too. A recipe can be a type of algorithm. It tells what ingredients are needed to make the dish and what steps to follow. If the recipe tells exactly what to do without too much confusion, then it is an algorithm. An algorithm is the basic technique used to get the job done.

There is usually more than one way to solve a problem. There may be many different recipes to make a certain dish which look different but end up tasting the same when all is said and done. The same is true for algorithms. However, some of these ways will be better than others. When we look at algorithms as a way of solving problems, often we want to know how long it would take a computer to solve the problem using a particular algorithm. When we write algorithms, we like our algorithm to take the least amount of time so that we can solve our problem as quickly as possible.

Algorithms can be expressed in many kinds of notation, including natural languages, pseudocode, flowcharts, programming languages or control tables (processed by interpreters).