About the Software

The Sudoku Solver is a programme specifically designed to solve ANY valid Sudoku puzzle.

**The Sudoku** is a [logic](http://en.wikipedia.org/wiki/Logic)-based, [combinatorial](http://en.wikipedia.org/wiki/Combinatorial) number-placement [puzzle](http://en.wikipedia.org/wiki/Puzzle). The objective is to fill a 9×9 grid with digits so that each column, each row, and each of the nine 3×3 sub-grids contain all of the digits from 1 to 9. An additional constraint on the contents of individual regions is that the same single integer may not appear twice in the same 9×9 playing board row or column or in any of the nine 3×3 sub-regions of the 9×9 playing board.

The puzzle was popularized in 1986 by the Japanese puzzle company [Nikoli](http://en.wikipedia.org/wiki/Nikoli" \o "Nikoli), under the name Sudoku, meaning *single number*. It became an international hit in 2005.

There a total of 6,670,903,752,021,072,936,960 possible permutations. This number is equal to 9! × 722 × 27 × 27,704,267,971, the last factor of which is prime. The result was derived through logic and “**brute force computation**."

Factors used

* Use of arrays
* Use of Classes
* Presence of Validation checks
* Use of nested loops
  + greatest depth of for loops = 6
  + lines 340 to 395 in rfrequency();
* Use of if - else if ladder
* File streaming
* Use of following header files :
  + iostream
  + fstream
  + conio.h
* use of complicated algorithms