



How Do You Play Chemdoku?

Have you ever played Sudoku? Chemdoku is based upon the exact same principles, only you are using chemical symbols instead of numbers or letters. Playing Chemdoku requires no chemistry skills. It is just a game of placing chemical symbols in squares, using very simple rules of logic to help you narrow down the possible answers that can go in each empty box. It can be played by children and adults and the rules are simple to learn.

Chemdoku Objective

The objective of the game is to fill all the blank squares in a game with the correct chemical symbols. These chemical symbols have been picked at random and have no particular order. There are three simple rules to follow. In a 9 by 9 square Chemdoku game:

- Every row of 9 chemical symbols must include all 9 symbols in any order
- Every column of 9 numbers must include all 9 symbols in any order
- Every 3 by 3 subsection of the 9 by 9 square must include all symbols.

Similarly, smaller Chemdoku puzzles, such as the 4x4 puzzle, must have the 4 chemical symbols in each row, column and quadrant. The principles are the same whatever the size of the game.

Every Chemdoku game begins with a number of squares already filled in. The more squares that are known, the easier it is to figure out which symbols go in the open squares. As you fill in squares correctly, options for the remaining squares are narrowed and it becomes easier to fill them in.

Tips on Solving a Chemdoku

E			H	M	Y	C	T	
M	C	Y	T	E		I	H	
H	R	T				M	E	Y
C	E	M	R	H	S	Y	I	
		H	C	I	M	S	R	
			Y	T	E	H	M	C
T	M	I				R	Y	H
	H	C		Y	T	E	S	M
	Y	E	M	R	H	T	C	I

Before you jump into your first Chemdoku, let's work on this practice puzzle using the letters in the word, "Chemistry" (C-H-E-M-I-S-T-R-Y). The first thing to do in this puzzle is to scan the rows and columns to see where a certain letter might go, given the 3 rules listed above. For example, in the center region, the only letter missing is an "I". Next, the only symbols missing in the bottom right-hand region are a "T" and a "C". However, putting a "C" in the bottom left-hand box in that region would conflict with the "C" already in that row. The "T", on the other hand, would not conflict with any of the given letters.

Once the "C" and "T" are filled in, deduction requires that you turn to the two remaining open boxes in the 7th and 8th column - these must include an "I" and a "Y" as the column's letters must represent all the letters in the word, "Chemistry". As you can see, every step makes the next step easier by narrowing possibilities. Every solved box makes filling the next box easier. Now you fill in the rest! You're now ready to start your Chemdoku puzzle!

Use the 4 element symbols below to fill out this Chemdoku Puzzle

H	He	Li	Be
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Li			H
	Be		He
He		H	
Be			Li

Created by Steven Waller

Use the 6 element symbols below to fill out this Chemdoku Puzzle

B	C	N	O	F	Ne
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B	C		Ne		O
				N	
Ne		B			C
F			B		N
	Ne				
N		F		C	Ne

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Use the 9 element symbols below to fill out this Chemdoku Puzzle

Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
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			Cr					Ni
V	Zn		Ni			Ti		Mn
	Co				Mn	Cr		
Zn	Mn			Co	Ni			
		V		Zn		Ni		
			Ti	Mn			V	Cu
		Mn	Zn				Fe	
Co		Zn			Ti		Cr	V
Cu					Fe			

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