## The GEB Crossword Eric Prichard



Across
2 Named after al-Khwarizmi, it is a step by step process for calculations
7 Known for the "Chinese Room Problem."
10 Famous sequence: 011235813 21...
13 Mathematician who wrote Alice in Wonderland.
14 A poem where the first letter of each line spells out a word or phrase
16 In computer science it is a series of characters serving as a literal constant or variale. In formal languages, it is a finite series of symbols taken from a set.
17 Two dimensional planes created by using repeating and non-overlapping geometric shapes. Often used in Islamic art.
20 Self-replicating nucleic acid containing genetic instructions for all known life.
21 A statement that seems to, but frequently does not, lead to a contradiction.
22 Field that studies such things as quantity, space, patterns, and the properties of numbers.
23 Often incorporated by Escher, these objects can't exist in real life. Examples include the Penrose triangle and devil's tuning fork.
25 19th Century English logician, now considered the grandfather of Computer Science.
27 Long nosed mammal known for eating ants and termites
28 A statement about what would be the case if an untrue antecedent were true.
29 An electrically excitable cell which is the basic unit of the nervous system
30 Branch of mathematics devoted to study of integers
33 Computer that defeated Gary Kasparov.
37 A form of music where the melody is repeated at least once after a given number of bars. Bach and Pachelbel are known for theirs.
38 Hungarian-American mathematician who was a founding figure in modern computer science and wrote the unfinished "The Computer and the Brain"
39 Philosopher who allegedly claimed that motion is an allusion
40 Logician famous for his incompleteness theorem
41 In computer science, it is a statement that is specified one time, but carried out multiple times, often using recursion.
42 Eccentric english mathematician who conceptually figured out how computers could manipulate symbols on a strip of tape using a table of rules. Committed suicide by eating a poisoned apple.

Down
1 Geometries based on axioms very similar to Euclid's, with the exception of their treatment of his "Parallel postulate." Examples include elliptic and hyperbolic geometries.
3 Derived from the Chinese word Chan, which means meditation, this is a common form of buddhism.
4 Cognitive scientist at Indiana University and "Author of Goedel, Escher, Bach"
5 A story, riddle, or dialogue used by Zen monks during meditation to help them transcend reason.
618 century German composer famous for his fugues like Toccata and Fugue in D minor.
8 Greek warrior who killed Hector
9 Defeated a haire in a race and showed that slow and steady can win
11 Ten legged crustacean whose legs are considered a delicacy.
12 Abbreviation for term referring to the intelligence of machines and the field of science that tries to improve and study it.
15 Fake "automatan" that defeated Napoleon in chess. A chess master hid inside.
18 Natural numbers greater than one and with no whole number divisor greater than one
19 Quite simply, a way of converting information into a different form of representation. Often we want to "break" or "crack" them.
24 Tests A.I. by determining whether a computer's response is distinguishable from a human's response
26 Ordinary whole numbers used for counting
31 A process of repeating items in a similar way. Often studied in computer science and mathematics.
32 Also known as genies, they are mythical beings from Islamic folklore
34 Dutch artist famous for his tessellations and visual paradoxes
35 A way of representing computer instructions using only 0's and 1 's.
36 The formal study of reasoning

