Euler's circle and the truth table essay



Euler's Circle and the Truth TableTruth tables and Euler's Circle are related to each other. Both concepts are used in determining validity of arguments. Truth tables are used to determine the validity of a logical argument by determining the truth value of the whole argument. On the other hand, Euler's Circle is a diagram used to determine validity of categorical statements which are represented by a circle in the diagram (Bluman, 2005). In this paper, the use of truth table and Euler's circle will be examined and applied through some problems in order to determine whether both will give the same validity to the same problem. Euler's Circlea) No A is B. Some C is A.

? Some C is not B. The argument is valid as the instance of the conclusion is observed from the Euler's Circle. b)All B is A. All C is A.

can be false for one instance, the argument is not valid. The results of the

truth table showed that argument a is valid.

In addition, Euler's Circle also showed that the argument is valid. On the other hand, truth table showed that argument b is not a valid argument. In terms of Euler's Circle, argument b is also found to be an invalid argument. Both truth table and Euler's Circle gave the same results for the validity of the two arguments. Thus, one can say that truth tables is indeed related to Euler's Circle. ReferenceBluman, A. (2005).

Mathematics in our world. New York, NY: McGraw-Hill.;;