Mathematics: The Root of Computer Engineering

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Abstract: *Math like every other field of life, matters for computer science and engineering because it teaches students how to use abstract language, work with algorithms, self-analyze their computational thinking, and accurately model real- world solutions. In the current world, the call to expand access to computer science education in schools is increasing. As the educational community focuses on this challenge, the relationship between math education and computer science is undoubtedly moving into the spotlight. This relationship can be a controversial subject. Part of this debate springs from differing ideas of what constitutes a "strong background in mathematics." For some, it's getting a Ph.D. mathematics. For others, it's being able to solve multistep equations mentally.*

Keywords: Abstract Language, Algorithm, Computational Thinking, Multistep Equations

REFERENCES

[1]. Mathematics for Computer Science by Eric Lehman, F. Thosmon & Albert R. Meyer

[2]. Mathematics in Computer Science, Christopher J. Van Wyk, Instt. Of Computer Science and Technology, NBS, Washington D.C. 20234

[3]. The role of mathematics in Computer Science by Doug Baldwin

[4]. Mathematical applications in Computer Science: A Review by A.K.Saxena, Dr. Saurabh Saxena

[5]. The Reader's blog through stonebridge

[6]. Knuth, D. E., The Art of Computer Programming Vol. 2

[7]. Seminumerical algorithms, Addison Wesley, New York, 1981.

[8]. Yan, S. Y., Number Theory for Computing, Springer, New York, 2000.

[9]. Knuth, D. E., The Art of Computer Programming Vol. 3, Sorting and Searching, Addison Wesley, New York