

## Nathaniel Dean



According to *Mathematicians of the African Diaspora*, Nathaniel Dean is one of the few select outstanding African American researchers who show much promise in the field of mathematics. He began his career with he obtained his B.S. in mathematics and physics from Mississippi State University. He furthered his career by attaining his Master's Degree and finally his Ph. D. in Mathematics from Vanderbilt University in 1987. His first job, which took him through the year 1998, was as a member of the Software Production Research Department at Bell Laboratories.

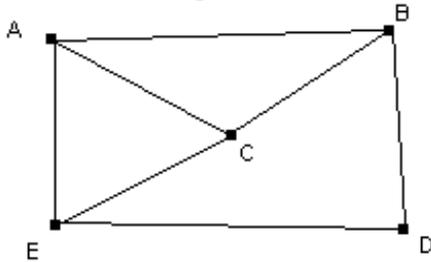
It was during this time he married Rhacel Sabelande. They went on to have 3 productions of their own, Christopher, Arathan, and Brandon. In 1998 Dean left Bell Laboratories to become an Associate Professor in the department of Computational and Applied Mathematics at Rice University where he is still at today.

Dean is not only focused on Mathematics, he has several hobbies that he enjoys. The one that could probably be considered his favorite is the martial arts. He has enjoyed this sport for several years. Dean is also an active member in minority organizations and urban youth leagues. He has several links on his website to historically black colleges and universities and has membership in several organizations that are devoted to promoting education for minorities.

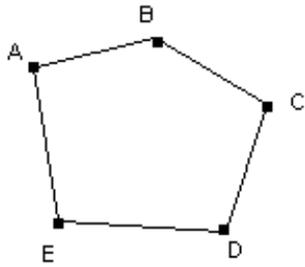
In class we learned the basics behind graph theory in order to understand a little bit from his paper, "Gallai's Conjecture for Disconnected Graphs." In the following questions answer them according to the lecture and what you learned about graph theory.

1. Draw a directed graph and an undirected graph. Please label which is directed and which is undirected and give a brief explanation why you labeled each graph the way you did.

2. Give the degree of each vertex from the graph below.



3. Draw a cycle
4. Draw a path
5. Decompose the following cycle into two paths by naming the paths using the vertices.



## References

[www.math.buffalo.edu/mad/PEEPS/dean\\_nathaniel.html](http://www.math.buffalo.edu/mad/PEEPS/dean_nathaniel.html)

[www.camm.rice.edu/~nated/](http://www.camm.rice.edu/~nated/)

Dean, Nathaniel and Kouider Mekhia. "Gallai's Conjecture for Disconnected Graphs." *Discrete Mathematics*. 213(2000). 43-54.