

VECTOR ADDITION

Unit 2 , Dr. John P. Cise, Professor of Physics, Austin Com.

College , Austin, Texas USA, jpcise@austincc.edu & New York Times May 5, 2019 by Mercedes Bent, Stanford University

The Trip I Hope All African-Americans Can Take

By Mercedes Bent

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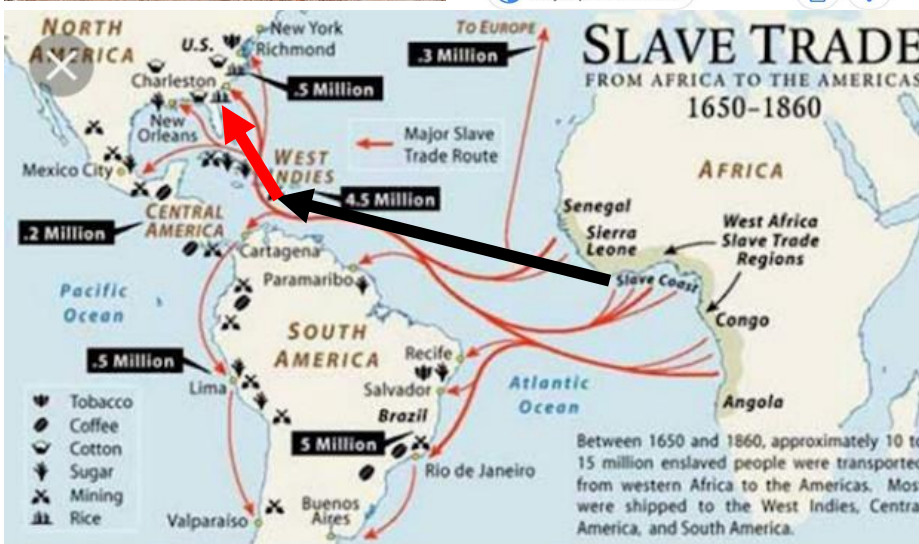


INTRODUCTION: Vectors have magnitude & direction. Nigeria to west indies is 7000 miles at 10° N of west (vector A) and West indies to Charleston is 2000 miles at 53° N of west (vector B).

QUESTIONS: Show your work clearly.

- (a) Find x & y components of vectors A & B?
(b) Find resultant (A + B) magnitude and direction. If you done this amount your done. ADVANCED for engineering students:
(c) Find dot product of A dot B? , (d) Find angle between A & B using Dot product?

ANSWERS: (a) $A_x = 6893.65$ mi. , $B_x = 1203.68$ mi.
 $A_y = 1215.54$ mi. , $B_y = 1597.27$ mi.,
(b) $A + B = R = 8576.62$ miles at 19.15° N of west.
(c) 10,239,294.21, (d) 43 degrees



Cape Coast Castle in Ghana was a central site of the trans-Atlantic slave trade.

At a naming ceremony in the home of my host family in **Lagos, Nigeria**, I wore brightly colored traditional clothing — a long, rectangular skirt tied tightly around my waist and an off-the-shoulder top with short, flared cuffs, all in a pink ankara pattern with a matching head wrap. “Please stand,” said my host, who had graciously offered to tailor the ceremony — which is normally performed for babies — for me, her adult visitor from the United States. “I hereby give you the name Esosa; it means ‘God’s gift.’ You are now Esosa Oloke. Welcome to the family. You will always have a family here in Nigeria.” I felt a surge of gratitude and belonging. For the first time in my life, I felt deeply connected to the African continent and to the people who live there. The ceremony concluded a 10-day trip to Nigeria and Ghana this year, Ghana’s **Year of the Return**, that I organized for friends and

classmates. To **commemorate the 400-year anniversary of the arrival of the first enslaved Africans to English North America in 1619**, President Nana Akufo-Addo has encouraged descendants of Africans who were enslaved in the Americas to return to the country.