

*The Unhidden Figures:
Inspiring Narratives and
Challenging
Mathematics Activities
to Engage Students*

Shelly M. Jones,
Associate
Professor,
Mathematics
Education
Central
Connecticut State
University

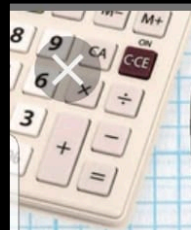
Mathematics Identity

The dispositions and deeply held beliefs that students develop about their ability to participate and perform effectively in mathematical contexts and to use mathematics in powerful ways across the contexts of their lives.

Aguirre, Mayfield-Ingram & Martin, 2013, p. 14



W
C

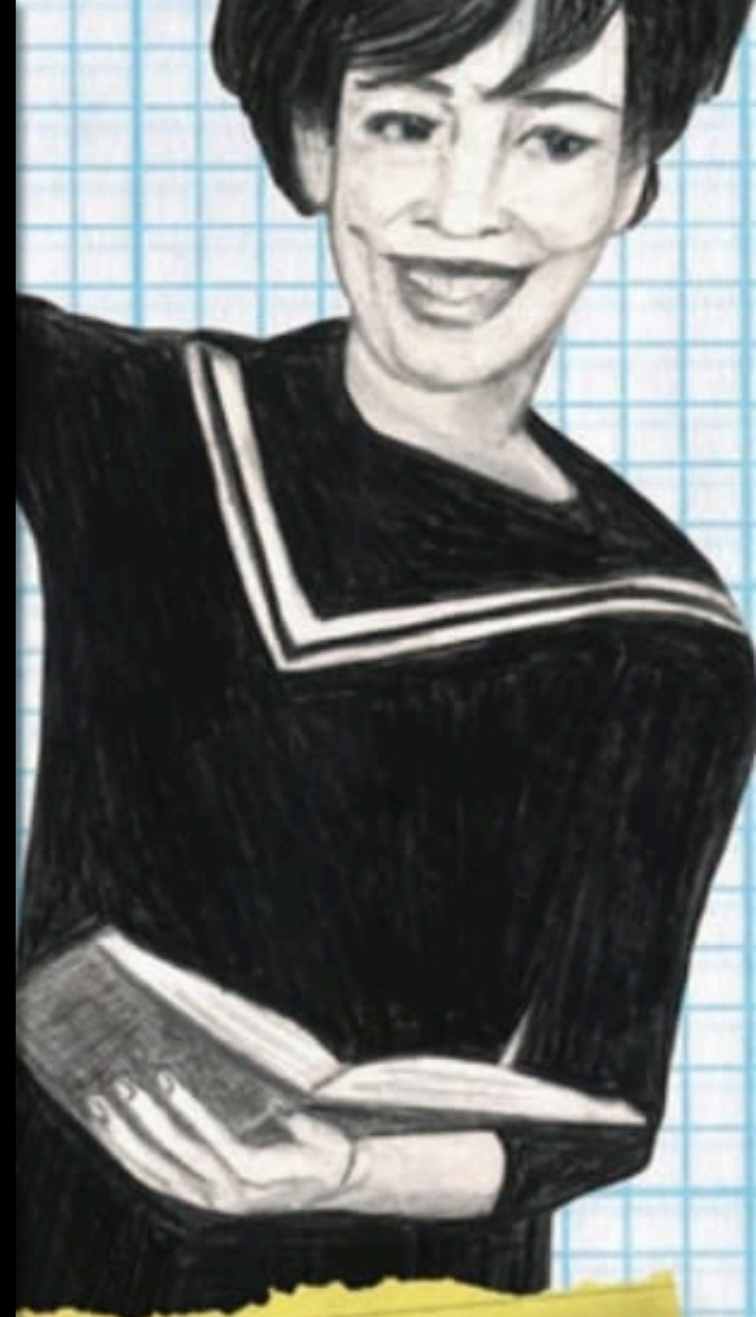


WOMEN WHO COUNT



Honoring African American
women mathematicians

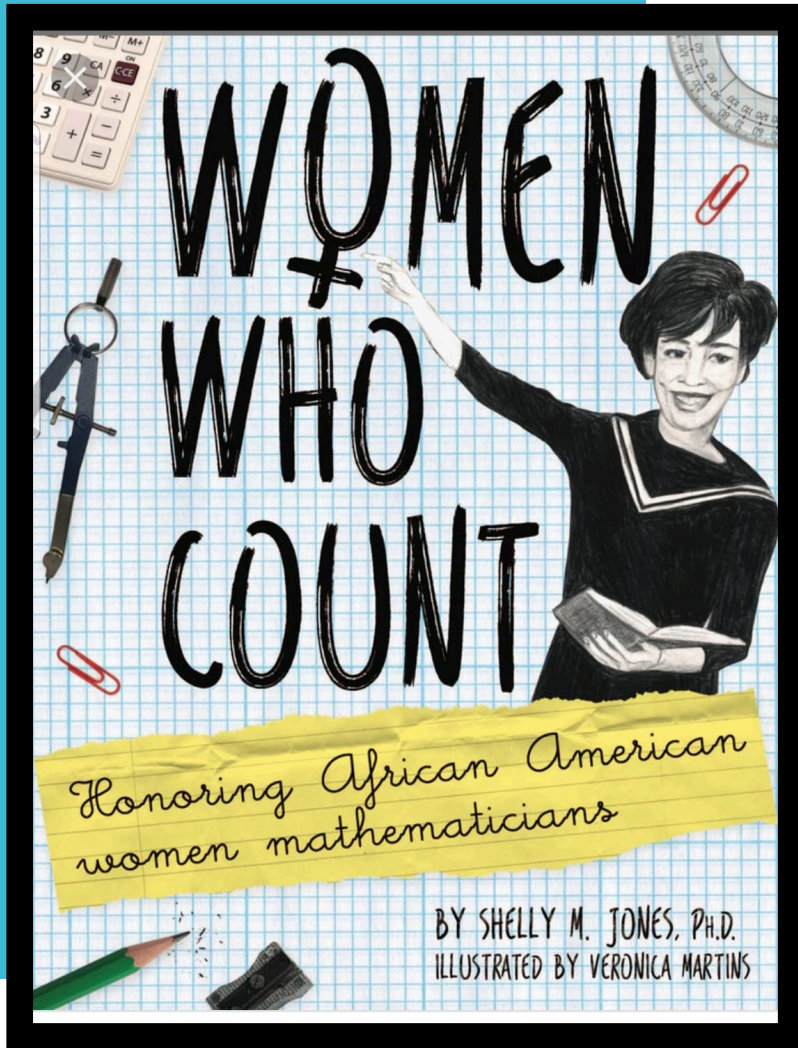
BY SHELLY M. JONES, PH.D.
ILLUSTRATED BY VERONICA MARTINS



Women Who Count: Honoring African American Women Mathematicians

- An activity book to motivate children in grades 3-8
- Includes a portrait sketch (or photo) and a short biography of each of the 28 featured African American women mathematicians
- Elementary and middle school level mathematics activities
- Focuses on African American women mathematicians from various times in our history (*The Firsts, The Pioneers, The Hidden Figures, The Contemporary Mathematicians*)
- The activities include: word searches for mathematicians names, crossword puzzles, unscramble math vocabulary words, solve magic squares, coloring pages, I spy science lab, and more!

Women Who Count: Inspired By



Hidden Figures

THE FOLLOWING PREVIEW HAS BEEN APPROVED FOR
APPROPRIATE AUDIENCES
BY THE MOTION PICTURE ASSOCIATION OF AMERICA, INC.

THE FILM ADVERTISED HAS BEEN RATED



www.filmratings.com

www.mpaa.org

Who Inspires You?

- Name a Mathematician of color that you can use as a role model for students of color and for all students.
- What do you know about the mathematicians area of expertise?
- What is interesting about this person?
- What do you know about his/her personal life that would be of interest to students?
- Jot down some points here and then share with a neighbor.

THE FIRSTS



Euphemia Lofton Haynes



Evelyn Boyd Granville



Marjorie Lee Browne

Martha
Euphemia
Lofton Haynes



- FIRST AFRICAN AMERICAN WOMAN to earn a Ph.D. in Mathematics
- Euphemia lived from 1890 to 1980 in Washington, D.C.
- Bachelor's degree in Mathematics from Smith College in 1914.
- Ph.D. Catholic University in Washington, D.C., 1943

Dr. Granville

A LIVING
LEGEND



Th Pioneers: Etta Zuber Falconer



- Etta Zuber Falconer was born in Tupelo Mississippi in 1933
- She received a Bachelor's degree in mathematics from Fisk University in 1953 and an M.S. at the University of Wisconsin in 1954
- Was married to Dolan Falconer
- In 1969 she became the 10th African American woman to earn a Ph.D. in Mathematics from Emory University
- While in Atlanta, Dr. Falconer started a 37-year career at Spelman College

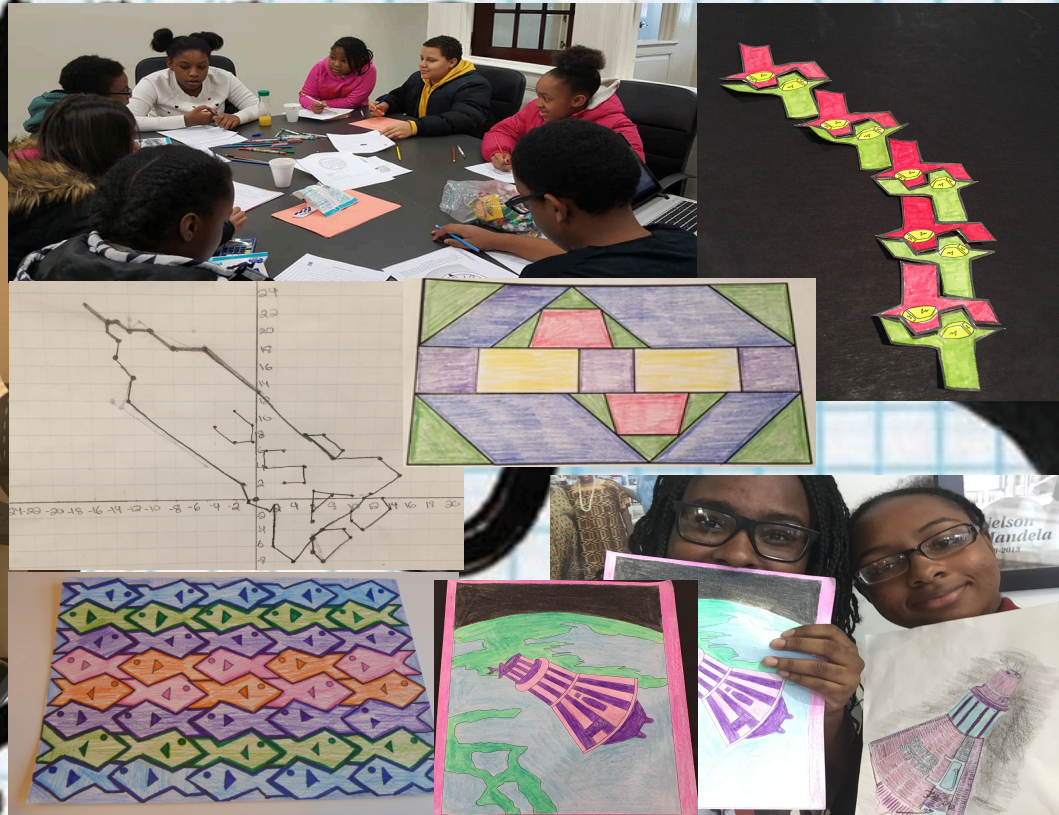
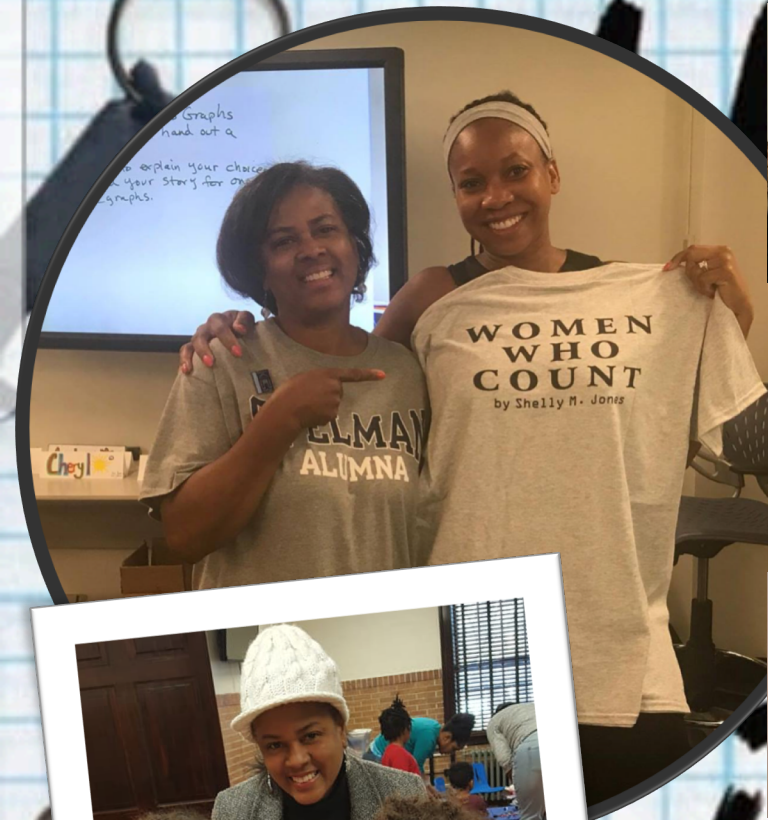
Spelman College Sisters Chapel



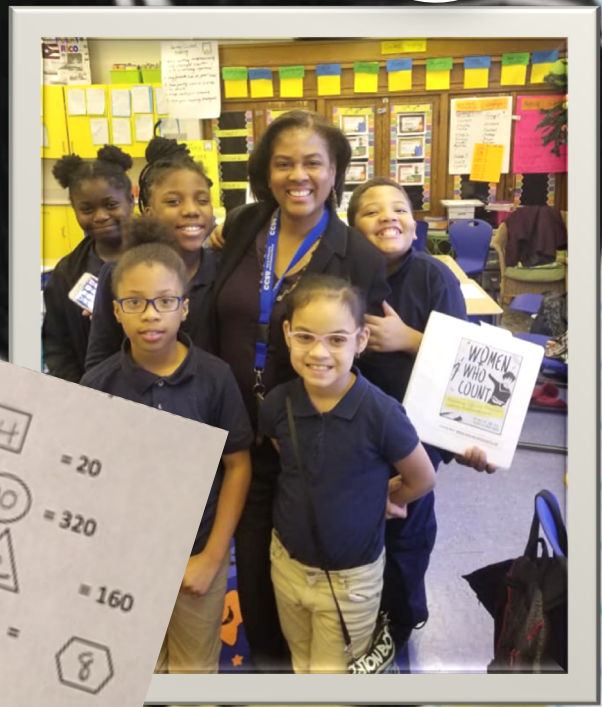
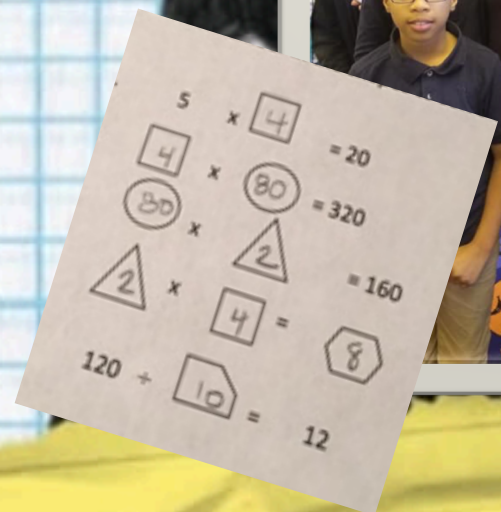
The Hidden Figures: Katherine Johnson, Mary Jackson, Dorothy Vaughan, Christine Darden







3	4	8	2	5	6	7
7	6	1	3	4	5	2
2	7	3	6	9	4	8
3	2	4	8	7	9	
8	7	5	1	3	6	
4	9	5	1	6	2	3
5	2	4	8	3	9	1



The Contemporary Firsts: Dr. Talitha Washington

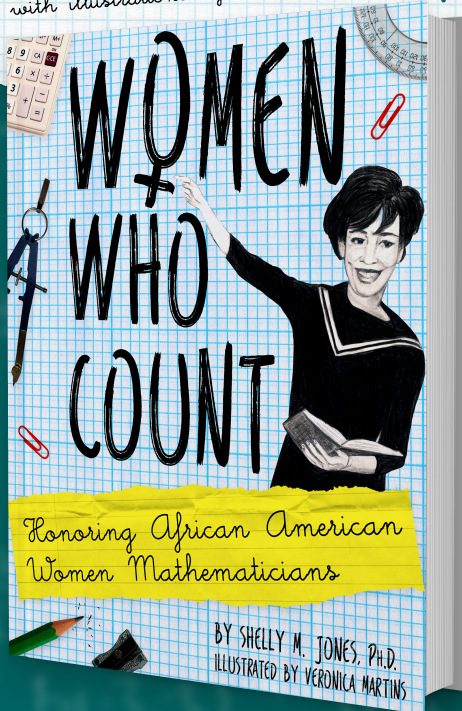




- Associate Professor of Mathematics at Howard University in Washington, DC.
- Spelman Alumna
- Dr. Washington holds a Ph.D. in mathematics from the University of Connecticut (UConn). She found out that she was the first African American woman to earn a doctorate in math from UConn.
- With her passion for education, she led a youth conference, *Stepping Up*, that encouraged youth to pursue viable careers through higher education.
- She also led a one-week research-based summer camp for middle schoolers to explore current trends in mathematics and the sciences

See my website for more info

www.womenwhocount.net



Women Who Count

A NEW CHILDREN'S BOOK CELEBRATING
AFRICAN AMERICAN WOMEN IN MATHEMATICS!

By Dr. Shelly M. Jones
with illustrations by Veronica Martins

Math Activities for
Children Grades 3-8

- WORD SEARCH
- CROSSWORD PUZZLES
- MATH EQUATIONS
- MAGIC SQUARES
- COLORING PAGES
- AND MORE...

Shelly M. Jones, Ph.D.

As an Associate Professor of Mathematics Education at Central Connecticut State University, Dr. Jones teaches undergraduate mathematics content and methods courses for pre-service teachers as well as graduate level mathematics content, curriculum and STEM courses for in-service teachers. She is a contributing author for the book *The Brilliance of Black Children in Mathematics: Beyond the Numbers and Toward a New Discourse*. Dr. Jones is a board member of the Benjamin Banneker Association and the National Council of Supervisors of Mathematics.

WWW.WOMENWHOCOUNT.NET TWITTER @SHELLYMJONES1

POSITIONING

IN THE MATHEMATICS CLASSROOM:

- Whose voice matters?
- Who is the authority?
- What are your problem contexts?



To position students as mathematically competent in your classroom, reflect on these questions:

- How do I create classroom norms and routines that support students to take risks to engage in mathematical discourse?
- In what ways are students' mathematical ideas shared and valued?
- How do my teaching practices communicate to each and every student that their ideas matter?
- In what ways is intellectual authority distributed in my classroom?
- How do my teaching practices use students' ideas to guide them to important mathematical insights and understandings?

(Robert Q. Berry, III., NCTM, President)

What norms do you currently have in place in your classroom that positions ALL students as mathematically competent?



Tweet responses to @shellymjones1
#NCTMSD2019



The Benjamin Banneker Association

WWW.BANNEKERMATH.ORG

Focus



Perseverance



Inspiration



Who Am I? Shelly M. Jones

- Associate Professor Math Education, Central Connecticut State University
- Educator since 1991 (Middle School Math Teacher, Mathematics Supervisor, Professional Development Provider, Mathematics Teacher Educator)
- Member of National Council of Teachers of Mathematics (NCTM) and Benjamin Banneker (BBA), Association since 1998
- Northeast Director of BBA
- Teacher to Teacher Global Team Member
- Author, Women Who Count: Honoring African American Women Mathematicians
- Contributing Author, The Brilliance of Black Children in Mathematics: Beyond the Numbers and Toward New Discourse
- JONESSEM@CCSU.EDU

