

# ALMANAC FOR POPULATIZATION OF COMPUTER SCIENCE

SERIES

1

COMPUTERS  
ETHICS AND  
SOCIETY



VOLUME 2

## WOMEN IN COMPUTING



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*The characters and situations of this work are real only in the universe of fiction; Do not refer to people and concrete facts, and do not Opinion about them.*

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# ALMANAC FOR POPULARIZATION OF COMPUTER SCIENCE

## Série 1: COMPUTERS ETHICS AND SOCIETY Volume 2: WOMEN IN COMPUTING

Sociedade Brasileira de Computação - SBC  
Porto Alegre - RS

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Achievement  
Federal University of Sergipe

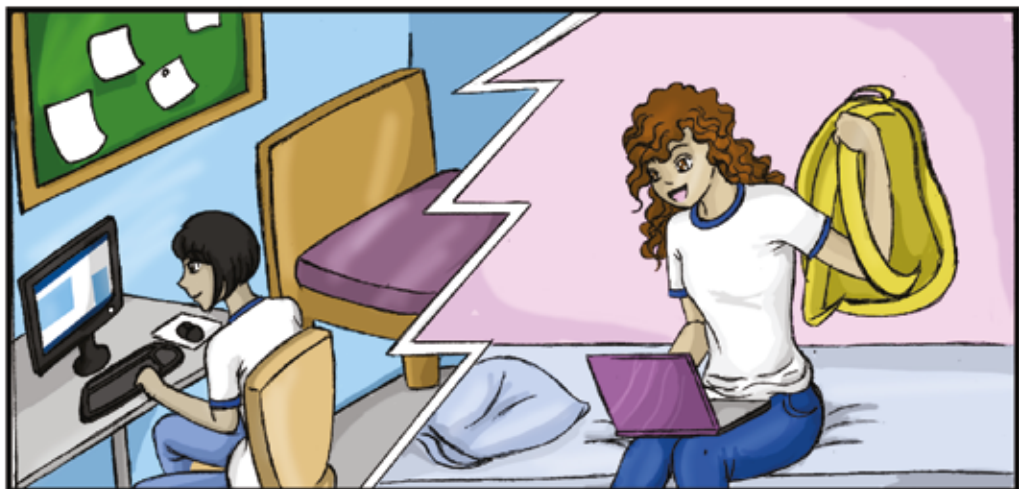
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# PRESENTATION

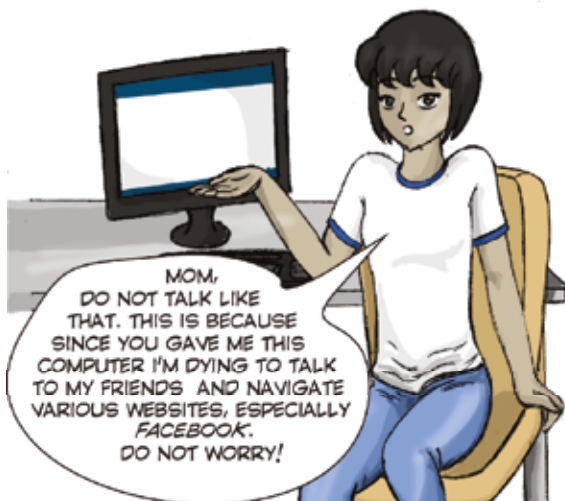
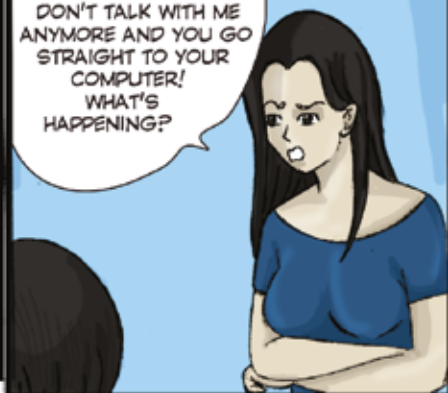
This booklet is part of the extension project for popularization of the Computer Science in Sergipe state supported by PROEX-UFS. It is also linked to the productivity grant project of CNPQ-DTII coordinated by prof. Maria Augusta Silveira Netto Nunes, being developed at the department of computer/graduate program in Computer Science (PROCC) - UFS.

The booklet is also the result of the project n° 420160/2013-2 from the call n° 18/2013 MCTI/CNPQ/SPM-BR/PETOBÁS – “Meninas e Jovens fazendo Ciências Exatas, Engenharias e Computação”.

The booklet introduced young readers, pre-universities students and students (especially for girls), a history of women's participation in computer science. One of the major goals is to awaken interest, promote and encourage sergipe and national public interest in computer science area. The booklet also presents a bit about stereotype of those who work with computing.



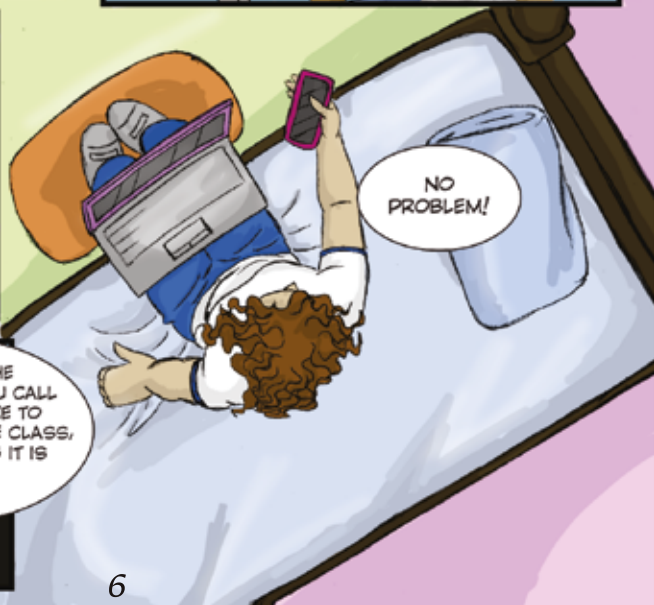
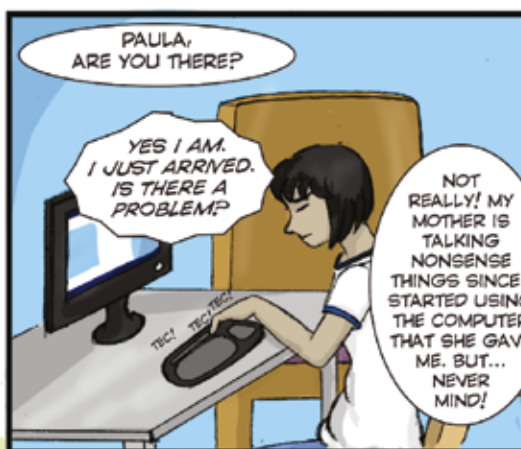
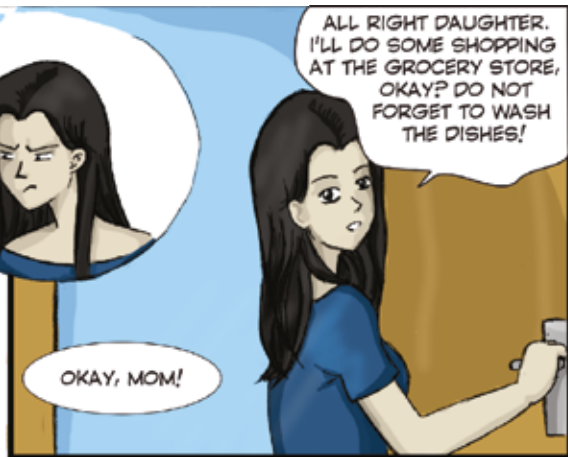
BRUNA! RECENTLY WHEN YOU RETURN FROM SCHOOL, YOU DON'T TALK WITH ME ANYMORE AND YOU GO STRAIGHT TO YOUR COMPUTER! WHAT'S HAPPENING?



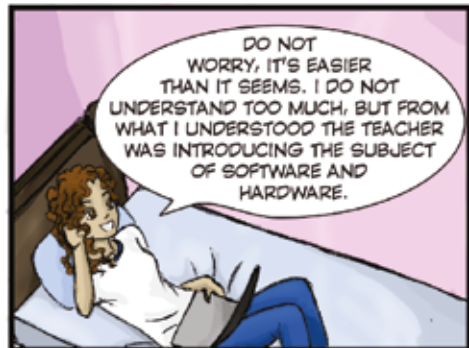
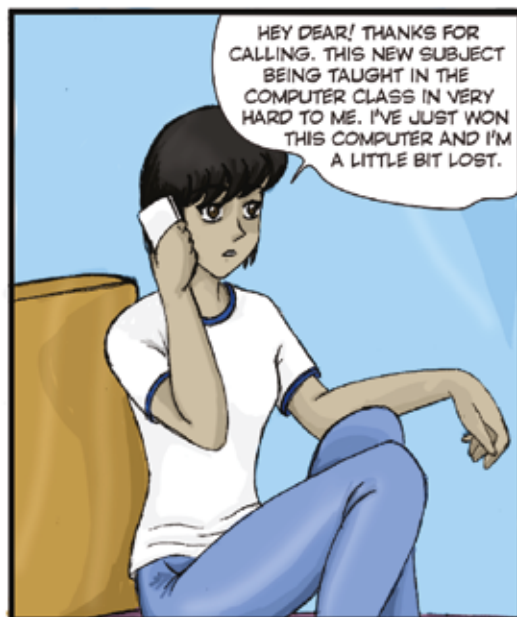
MOM, DO NOT TALK LIKE THAT. THIS IS BECAUSE SINCE YOU GAVE ME THIS COMPUTER I'M DYING TO TALK TO MY FRIENDS AND NAVIGATE VARIOUS WEBSITES, ESPECIALLY FACEBOOK. DO NOT WORRY!

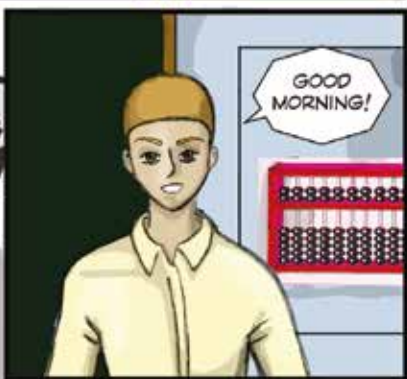
DAUGHTER, BE CAREFUL WITH THESE THINGS. YOUR BROTHER IS PRACTICALLY ALL DAY ON FACEBOOK OR PLAYING COMPUTER GAMES. THESE GAME ARE AGRESSIVE AND ARE NOT MADE FOR GIRLS, OK?



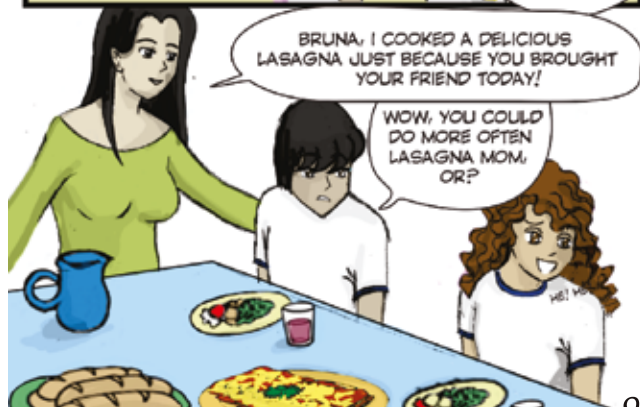
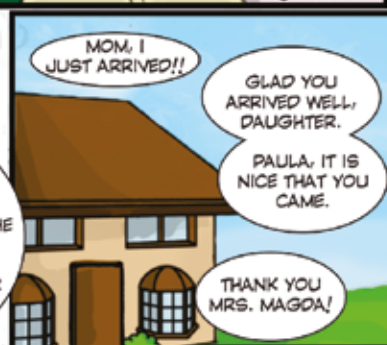
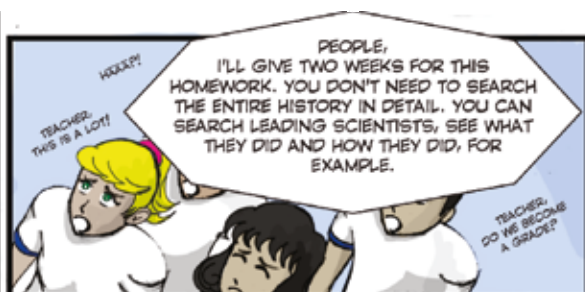
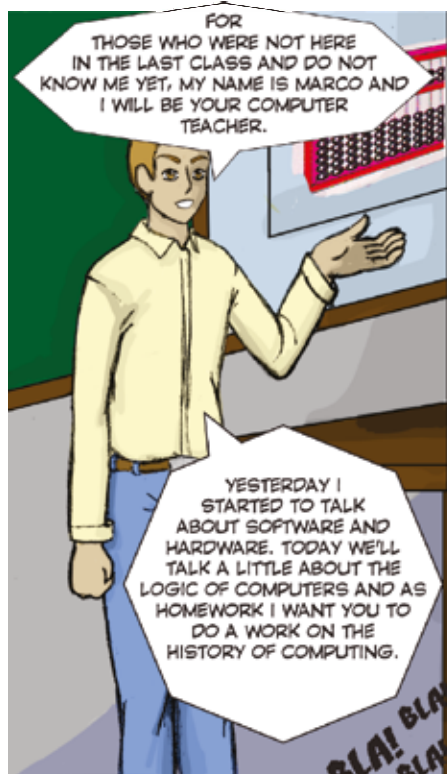


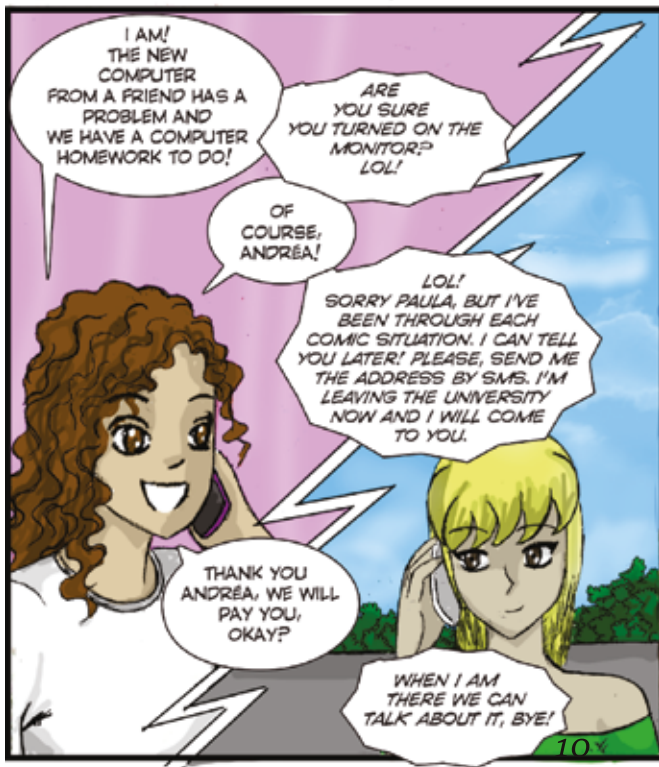
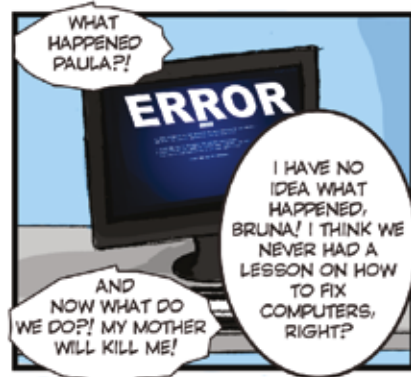




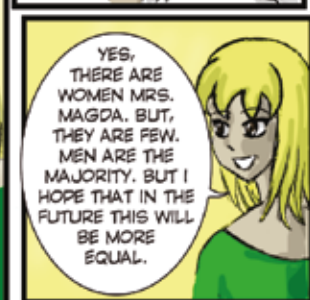
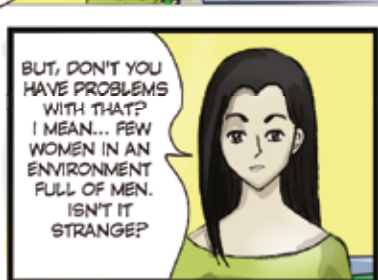
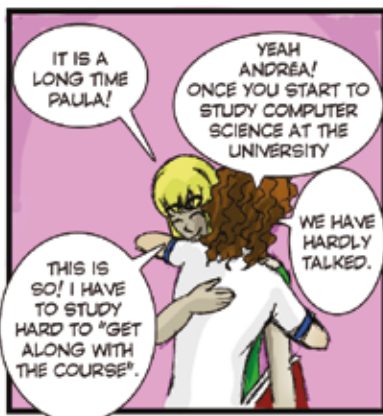


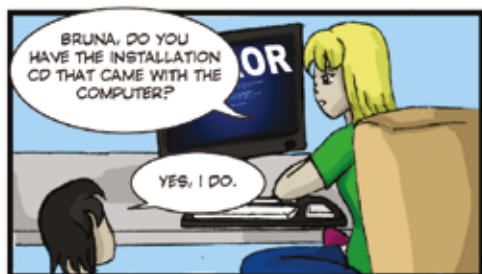
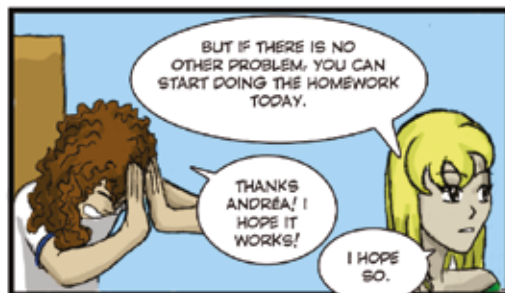
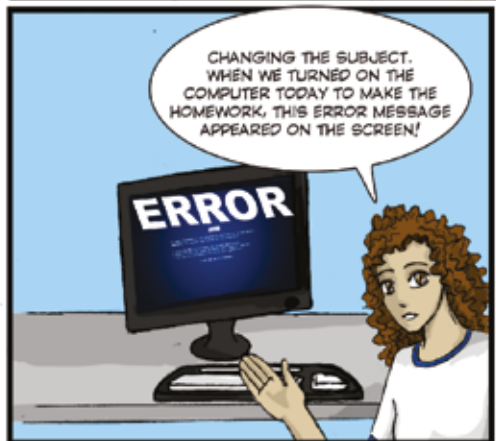
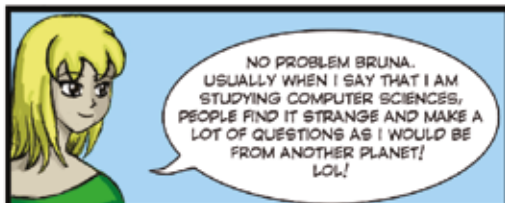
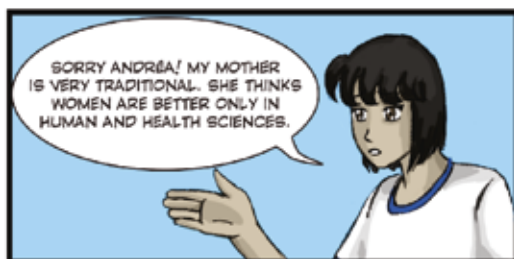


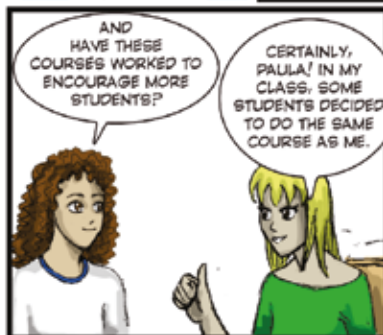
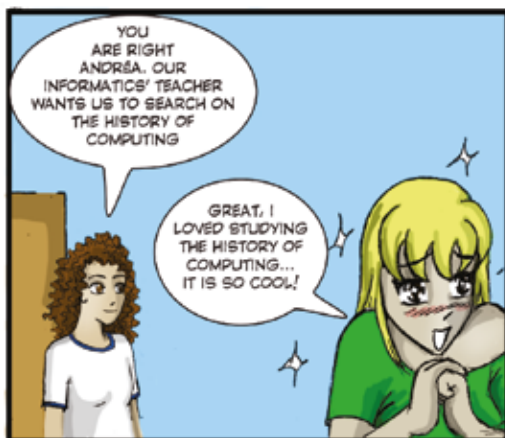














WELL...  
I'LL TELL YOU SOMETHING THAT  
NOT SO MANY PEOPLE KNOW. THE FIRST  
COMPUTER PROGRAM WAS MADE BY A WOMAN  
NAMED AUGUSTA ADA BYRON IN 1842.  
I'LL GET MY TABLET TO SHOW HER  
PICTURE...



COOL!  
THEN, WAS SHE THE  
FIRST PERSON TO MAKE  
PROGRAMS? WHO WOULD GUESS  
THAT... CAN YOU SEE IT BRUNA? I  
BET YOU THOUGHT THAT WERE  
THE MEN WHO INVENTED IT.

DID NOT  
SAY ANYTHING  
PAULA!

AND  
THERE ARE MORE, GIRLS.  
EVEN THOUGH ADA HAS CREATED THE  
FIRST ALGORITHM, SHE IS MOST OFTEN  
CITED AS AN ASSISTANT OF AN IMPORTANT  
SCIENTIST AND MATHEMATICIAN OF THIS TIME  
CALLED CHARLES BARBAGE. WOMEN  
SCIENTISTS WERE NOT HIGHLIGHTED. AT  
THAT TIME ONLY FEW WOMEN  
COULD STUDY.

WHAT  
INJUSTICE!

CALM  
DOWN PAULA...  
SOME YEARS LATER A  
PROGRAMMING LANGUAGE  
CALLED ADA WAS  
CREATED.

AGAIN!

ALGORITHM?  
PROGRAMMING  
LANGUAGE? I DID NOT  
UNDERSTAND  
ANYTHING...

SORRY  
BRUNA,  
I FORGOT  
THAT YOU  
DO NOT  
KNOW THESE  
TERMS. THE  
ALGORITHM IS  
A SET OF  
STEPS THAT  
MUST BE  
FOLLOWED.

FOR A  
PROBLEM  
TO BE  
SOLVED OR  
A TASK TO BE  
PERFORMED.  
IT'S LIKE A  
CAKE  
RECIPE.

BUT  
WAS THERE  
ANY COMPUTER IN  
THE NINETEENTH  
CENTURY?

NOT  
YET, BUT AS ADA WAS  
GOOD IN MATHEMATICS,  
ORGANIZED AND HAD AN EXCELLENT  
LOGICAL REASONING, SO SHE HELPED  
CREATING THE FIRST ALGORITHMS FOR  
SOLVING MATHEMATICAL  
PROBLEMS.

INTERESTING  
ANDREA, BUT  
WHAT ABOUT THE  
LANGUAGE?

THE  
PROGRAMMING  
LANGUAGE IS LIKE A  
LANGUAGE THAT HUMANS  
USE TO COMMUNICATE WITH  
COMPUTERS. A WAY TO  
INSTRUCT THE COMPUTER  
TO DO A TASK.

NOW I  
UNDERSTAND! AND  
BEYOND ADA, WERE THERE  
OTHER IMPORTANT WOMEN  
IN THE AREA?

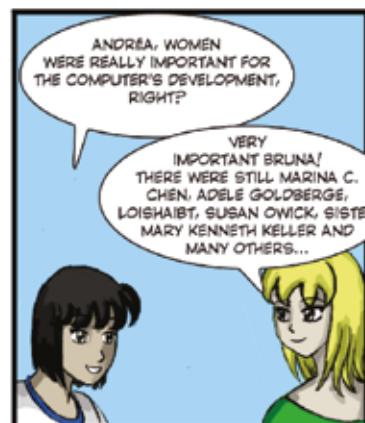
OF COURSE.  
FOR EXAMPLE: GRACE MURRAY  
HOPPER. GRACE WAS A MATHEMATICS' AND  
PHYSICS' EXPERT THAT HELPED PROGRAMMING A SERIES  
OF COMPUTERS CALLED MARK I, MARK II AND MARK III.  
MARK WAS WIDELY USED IN WORLD WAR II.

WOMEN IN  
WORLD WAR II?

IN ADDITION, SHE CREATED THE  
COMPILER LANGUAGES AND ALSO CREATED A  
NEW PROGRAMMING LANGUAGE CALLED FLOWMATIC.  
SHE WORKED FOR THE US NAVY AND WAS VERY  
IMPORTANT.

WELL,  
THEY WERE SO  
GOOD AT CALCULATIONS  
THAT WERE RESPONSIBLE  
FOR PROGRAMMING  
COMPUTERS TO PREVENT  
BALLISTIC ERRORS.





ANDREA, WOMEN WERE REALLY IMPORTANT FOR THE COMPUTER'S DEVELOPMENT, RIGHT?

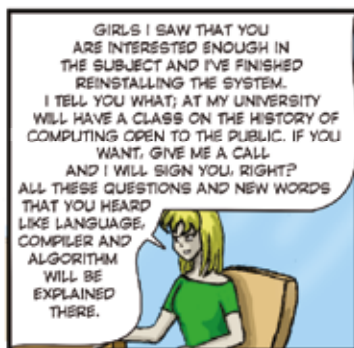
VERY IMPORTANT BRUNA! THERE WERE STILL MARINA C. CHEN, ADELE GOLDBERGE, LOISHAIBT, SUSAN OWICK, SISTER MARY KENNETH KELLER AND MANY OTHERS...



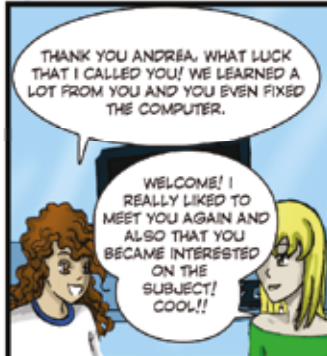
HERE IS A PICTURE OF HER...



COOL ANDREA! THESE WOMEN WERE FANTASTIC. AND WHAT ABOUT THIS COMPILER THAT YOU SAID, WHAT IS IT?



GIRLS I SAW THAT YOU ARE INTERESTED ENOUGH IN THE SUBJECT AND I'VE FINISHED REINSTALLING THE SYSTEM. I TELL YOU WHAT, AT MY UNIVERSITY WILL HAVE A CLASS ON THE HISTORY OF COMPUTING OPEN TO THE PUBLIC. IF YOU WANT, GIVE ME A CALL AND I WILL SIGN YOU, RIGHT? ALL THESE QUESTIONS AND NEW WORDS THAT YOU HEARD LIKE LANGUAGE, COMPILER AND ALGORITHM WILL BE EXPLAINED THERE.



THANK YOU ANDREA, WHAT LUCK THAT I CALLED YOU! WE LEARNED A LOT FROM YOU AND YOU EVEN FIXED THE COMPUTER.

WELCOME! I REALLY LIKED TO MEET YOU AGAIN AND ALSO THAT YOU BECAME INTERESTED ON THE SUBJECT! COOL!!



WAIT A MOMENT ANDREA, HOW MUCH WILL YOU CHARGE?

TODAY I WILL NOT CHARGE ANYTHING... BUT... THE NEXT TIME THAT YOUR COMPUTER HAS A PROBLEM, CALL ME.

THANK YOU SO MUCH ANDREA! DO NOT GIVE UP YOUR COURSE, OK?

OK!



ANDREA, IT IS GETTING LATE. I WILL TAKE THE CHANCE AND GO WITH YOU, OKAY?

ALL RIGHT THEN!

ARE YOU ALREADY LEAVING PAULA? NOW THAT I AM EXCITED TO DO THE HOMEWORK DO YOU WANT TO GO? I DO NOT BELIEVE! I ASK MY MOTHER TO DRIVE YOU HOME LATER.

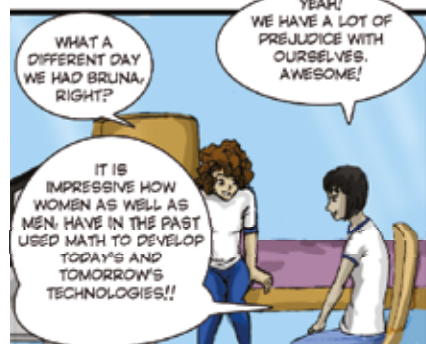


STAY PAULA! I CAN COME ANOTHER DAY AND WE CAN TALK MORE.

OKAY, BRUNA!



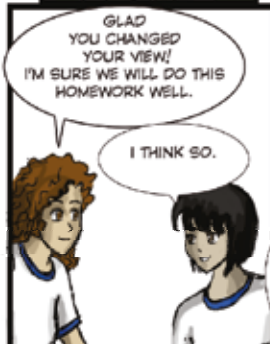
BYE!!



WHAT A DIFFERENT DAY WE HAD BRUNA, RIGHT?

IT IS IMPRESSIVE HOW WOMEN AS WELL AS MEN HAVE IN THE PAST USED MATH TO DEVELOP TODAY'S AND TOMORROW'S TECHNOLOGIES!!

YEAH! WE HAVE A LOT OF PREJUDICE WITH OURSELVES, AWESOME!



GLAD YOU CHANGED YOUR VIEW! I'M SURE WE WILL DO THIS HOMEWORK WELL.

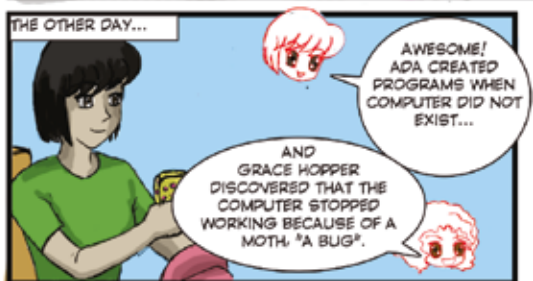
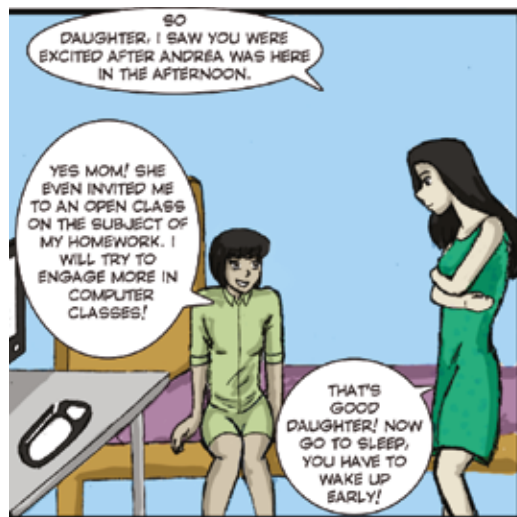
I THINK SO.



YOUR MOTHER DOES NOT HAVE TO DRIVE ME, OK? I TALKED TO MY DAD AND HE'S COMING TO PICK ME UP.

OKAY! THANKS FOR COMING TODAY. AFTER, WE ARRANGE ANOTHER DAY.

OK! BIG KISS!







CONGRATULATIONS GIRLS! I AM IMPRESSED WITH THE RESEARCH MATERIAL THAT YOU ORGANIZED. YOU SEARCHED MANY DETAILS OF THE SCIENTISTS IN THE HISTORY OF COMPUTING.

COOL!

VERY GOOD

NOT BAD!



HOW HAVE YOU WRITTEN SO MUCH ABOUT HISTORY OF COMPUTING?

## INFORMATICS

SEARCHING ON THE INTERNET. MANY WOMEN STUDY, WORK AND RESEARCH ON COMPUTER NOWADAYS.

YOU GUYS NEED TO UPDATE YOURSELVES!  
LOL!



END!

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<http://www.personalityresearch.com.br/> <http://scholar.google.com.br/citations?user=rte6o8YAAAAA>

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