

Grace Murray Hopper



Grace Murray Hopper was born on December 9, 1906 in New York. She spent half a century helping keep America on the leading edge of high technology. Her parents, Walter and Mary, definitely instilled drive, ambition, and determination into their daughter. Hopper's mother gave her a love for mathematics, as well as her grandfather who gave Grace her first lessons in angles and curves. An excellent education gave Hopper a foundation for the career she had in front of her. An interesting fact is that she attended a women's college for her undergraduate studies. Hopper was lucky in that she did not encounter too much sexism. The only sexism that she encountered was when she was trying to enlist in the Navy. She was asked to postpone her enlistment. This woman started the basis for computer languages and actually coined the term "computer bug" in which there was an actual bug in the computer. Hopper served her country to the fullest in the Navy where she retired Rear Admiral.

Put the following in chronological order.

- ___ Invented the compiler for the computer.
- ___ Failed a Latin exam.
- ___ Graduated from Yale University.
- ___ Retired from the United States Naval Reserve.
- ___ Worked on the Mark I computer at Harvard University.
- ___ Developed COBOL, a computer language.
- ___ Took apart clocks just for the fun of it.

Eisenstein's criterion states that if all coefficients, except possibly the first one, are divisible by a prime "p", and the constant coefficient is not divisible by p^2 , then the polynomial is irreducible. His equation is the following:

$$x^n + A_{n-1}x^{n-1} \dots A_1x + A_0 = 0$$

Tell whether or not the following are irreducible or not using Eisenstein's criterion

1.) $5x^4 + 2x^3 + 4x^2 + 6x + 2$

2.) $x^4 + 2x^3 + 3x^2 + 4x + 6$

3.) $x^3 + 4x^2 + 6$

4.) $6x^4 + 4x^3 + 6x^2 + 2x + 4$